

September 9, 2014

Mr. John Osolin

Remedial Project Manager Emergency and Remedial Response Division United States Environmental Protection Agency – Region 2 290 Broadway New York, NY 10007-1866

Ms. Lynn Vogel

Case Manager New Jersey Department of Environmental Protection 401 E. State Street Mailcode 401-05F Trenton, NJ 08625-0420

RE: Annual Groundwater Monitoring Report
Evor Phillips Leasing Company Superfund Site
Old Bridge Township, Middlesex County, New Jersey (Program Interest #G000004877, EPA
ID #NJD980654222)

FILE: 19726 / 51308

Dear Mr. Osolin and Ms. Vogel:

On behalf of the Evor Phillips Leasing Company Superfund Site Settling Defendants (Group), O'Brien & Gere has prepared this Annual Groundwater Monitoring Report for the Evor Phillips Leasing Company (EPLC) Superfund Site (Site) in Old Bridge, New Jersey. The annual groundwater monitoring event was completed in January/February 2014, as presented in Section 6.3 of the Remedial Design Report (RDR) / Remedial Action Work Plan (RAWP) (approved by EPA via letter dated January 13, 2014). A Site Location Map is provided as **Figure 1**, and a Site Plan with well locations is provided as **Figure 2**.

The annual groundwater monitoring event was completed in conjunction with the baseline groundwater monitoring event for the in-situ chemical oxidation (ISCO) remedy selected by the EPA for Operable Unit Three (OU3) – Site Groundwater in accordance with the approved RDR/RAWP.

The following sections of this letter present the details of the groundwater sampling event, including the site preparation activities (i.e., installation/abandonment of monitoring wells), groundwater sampling activities, and groundwater sampling results.

SITE PREPARATION

In accordance with the approved RDR/RAWP, the Site groundwater interim remedial measure (IRM) system (consisting of groundwater extraction and treatment) was shut down on November 25, 2013 in advance of the OU3 remedial action (RA) implementation. The IRM shut-down allowed groundwater conditions at the Site to equilibrate to non-pumping conditions prior to the baseline groundwater monitoring event. Select IRM system extraction wells and equipment were abandoned and/or removed in preparation for the final OU3 ISCO groundwater remedy.

In order to supplement existing monitoring wells and to provide additional groundwater data for the RA implementation, four (4) new groundwater monitoring wells were installed within and proximate to the ISCO treatment areas (ISCO-MW-1 through ISCO-MW-4) as shown on **Figure 3**. In addition, five (5) other new 1090 King Georges Post Road, Suite 904, Edison, NJ 08837 | *p* 732-638-2999 | *f* 732-225-7931 | www.obg.com

monitoring wells (ISCO-MW-5 through ISCO-MW-9) were installed to provide monitoring locations in lieu of six (6) previous monitoring wells (MW-25, MW-26, MW-27, MW-4SR, IW-3S, and IW-5) and an extraction well (EW-5). Those previous wells were screened through the 4 - 7 foot thick silty clay unit, which serves as a local confining layer between the perched groundwater and deeper portions of the shallow aquifer. The six previous monitoring wells and the extraction well were abandoned to prevent the potential unintended migration of groundwater constituents across the silty clay unit during the RA implementation. The five new monitoring wells (ISCO-MW-5 through ISCO-MW-9) were installed in the general vicinity of the abandoned wells as shown on Figures 2 and 3. They are screened either above or below the silty clay unit, in the interval where the ISCO remedy will be applied. Monitoring wells were installed November 26-27, 2013 and December 23-24, 2013 by a NJ licensed driller (Environmental Probing Investigations, Inc.), under the supervision of an O'Brien & Gere geologist. Wells were constructed with 5 feet of 2-inch diameter PVC well screen with a riser to grade. Monitoring wells were completed with either a flush-mounted or stick-up casing. Boring logs, Form As, and Form Bs for the above noted wells are included as Attachment 1.

GROUNDWATER SAMPLING ACTIVITIES

In January/February 2014, a total of thirty (30) monitoring wells, including the new wells described above and one extraction well (EW-3), were sampled in accordance with the approved RDR/RAWP. The wells sampled included those previously sampled as part of the 2012 annual sampling event (except for abandoned wells), the newly installed wells, and IW1-DR-1. A list of wells sampled and their corresponding screened intervals is included as **Table 1**. Wells were sampled for VOCs via USEPA Method 8260B.

Monitoring wells were sampled using low-flow purge methods in accordance with the approved RDR/RAWP and the NJDEP Field Sampling Procedures Manual (FSPM). Purge water was containerized on site in 55-gallon steel drums. Water-level measurements were also collected from the sampled wells, and water elevation data are included in **Table 2**. Groundwater elevations for the shallow aquifer are depicted in **Figure 4**.

In accordance with the approved RDR/RAWP, selected wells were also sampled for dissolved iron/chromium and total chromium/sodium via USEPA Method 6010C, total dissolved solids (TDS) via USEPA Method SM 2540C, and sulfate via USEPA Method 300.0. These samples were collected at the following wells based on proximity to the ISCO treatment areas (refer to Figure 3):

- ISCO treatment area wells (10): ISCO-MW-1 through ISCO-MW-3, ISCO-MW-5 through ISCO-MW-9, PZ-1S, IW1-BT-2
- ISCO downgradient wells (3): ISCO-MW-4, MW-14S (two sample intervals), MW-10S
- ISCO upgradient wells (3): MW-5I, IW1-DR-1, MW-11I

The analytical results for the January/February 2014 monitoring event are presented in **Table 3**, including results for quality assurance/control (QA/QC) samples (collected in accordance with the approved RDR/RAWP).

Groundwater data were validated in accordance with the approved RDR/RAWP. Data validation results are included as **Attachment 3**.

GROUNDWATER SAMPLING RESULTS

Groundwater Flow

Consistent with previous groundwater monitoring reports, the shallow aquifer includes the "S" wells and the "I" wells, and the deep aquifer includes the "D" wells.

The shallow aquifer groundwater elevation contours are depicted in **Figure 4**. Six wells within a localized onsite perched groundwater zone (ISCO-MW-2, ISCO-MW-3, ISCO-MW-4, ISCO-MW-7, ISCO-MW-8, and ISCO-MW-9) and two deep wells (MW-15D and MW-23D) were not considered in the evaluation of the shallow groundwater elevation contours. Consistent with historical sampling results, shallow groundwater flow is generally toward the southwest.

Groundwater Quality

January/February 2014 groundwater monitoring data are presented in **Table 3**. Twenty-eight (28) monitoring wells in the shallow aquifer (MW-6S, MW-10S, MW-14S, MW-19S, MW-23S, MW-24, MW-28, PZ-1S, IW1-BT-2, IW1-DR-1, IW-4S, WCC-1S, MW-5I, MW-9I, MW-11I, MW-23I, WCC-1M, WCC-3M, and extraction well, EW-3, and ISCO-MW-1 through 9) were sampled and analyzed for VOCs. Two (2) monitoring wells in the deep aquifer (MW-15D and MW-23D) were also sampled and analyzed for VOCs.

An overview of groundwater data results in the shallow aquifer from the January/February 2014 event are as follows:

- Total VOC concentrations at each well are less than 110 ug/L, with the exception of ISCO-MW-2, which exhibited a total VOC concentration of 1,589 ug/L (ISCO-MW-2 is a newly installed well for the OU3 RA and is located within the Treatment Area 1 refer to Figure 5)
- A maximum 1,2-dichloroethane (1,2-DCA) concentration of of 1,270 ug/L was detected at ISCO-MW-2
- A maximum trichloroethene (TCE) concentration of 54.9 ug/L was detected at ISCO-MW-3 (also a newly installed well located within the Treatment Area 1)

A summary of the January/February 2014 results is shown on **Figure 5**, along with estimated TCE and 1,2-DCA iso-concentration contours. Historical monitoring results are included as **Attachment 2**. The areal extent of the dissolved-phase chlorinated VOC plume has not changed significantly over the past several years and is consistent with the extents of the OU3 treatment areas. Comparison of the 2014 results to the historical results indicates that VOC concentrations in groundwater are generally either static or declining. VOC trend analyses were completed for selected wells spatially distributed across the treatment areas and are included as **Attachment 4**.

ISCO injections to address groundwater contaminants in Treatment Areas 1 and 2 commenced on February 27, 2014 (after the Baseline Monitoring Event reported herein) and were completed on March 31, 2014. Monitoring wells within and proximate to the treatment areas will be sampled at frequencies defined in the approved RDR/RAWP (commencing in May 2014), to evaluate groundwater quality following the ISCO injection work.

In accordance with the approved RDR/RAWP, a post-injection report will be submitted to EPA/NJDEP following the completion of the post-injection groundwater monitoring, to evaluate the need for additional injection work moving forward.

Should you have any questions regarding this submission or require additional information, please do not hesitate to contact me at (732) 638-2930.

Very truly yours,

O'BRIEN & GERE ENGINEERS, INC.

Gary Angyal, PE Vice President

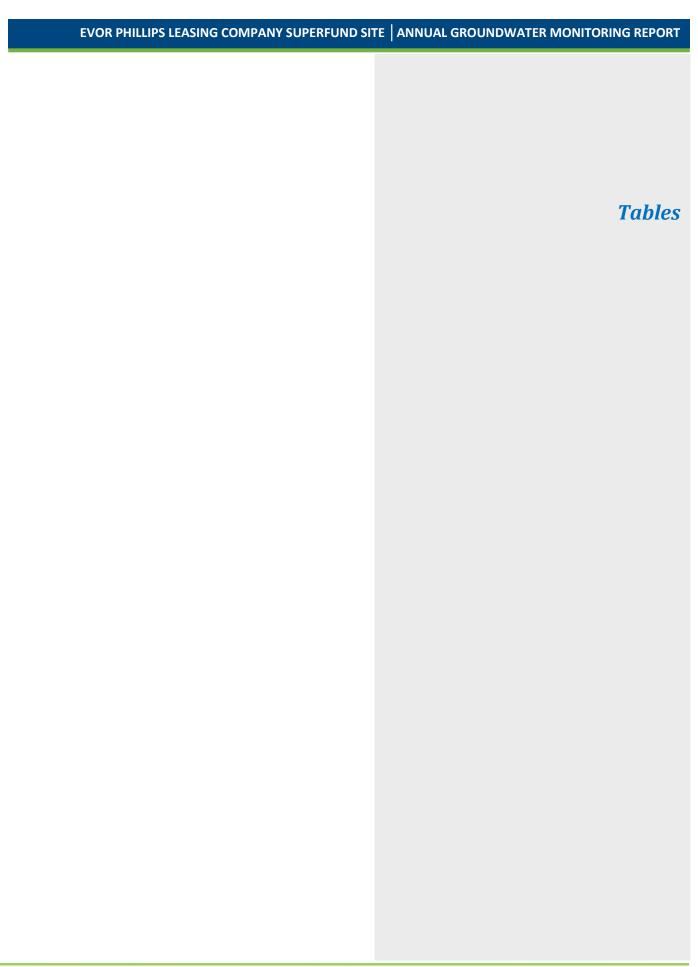
cc: EPLC Site Group

Mr. Chris Young, de maximis, inc.

Mr. Jeffrey Levesque, O'Brien & Gere Engineers, Inc.

ATTACHMENTS:

- Table 1 Monitoring Well Summary
- Table 2 Groundwater Elevations Summary
- Table 3 December 2013 / January 2014 Groundwater Results
- Figure 1 Site Location Map
- Figure 2 Site Plan
- Figure 3 ISCO Monitoring Plan
- Figure 4 Groundwater Elevations Shallow Aquifer
- Figure 5 Baseline Groundwater Monitoring Results
- Attachment 1 Monitoring Well Boring Logs, Forms A & B
- Attachment 2 Historical Groundwater Results
- Attachment 3 Data Validation Results
- Attachment 4 Concentration Trend Graphs



Evor Phillips Leasing Company (EPLC) Superfund Site Old Bridge, New Jersey Monitoring Well Summary Table 1

Well ID	Easting (NAD83)	Northing (NAD83)	TOC Elevation (ft MSL)	Top of Screen (ft bgs)	Bottom of Screen (ft bgs)	Top of Sample Interval (ft bgs)	Bottom of Sample Interval (ft bgs)
ISCO-MW-1	584,217.85	540,637.61	42.63	24	29	24	29
ISCO-MW-2	584,319.63	540,795.20	48.92	16	21	16	21
ISCO-MW-3	584,387.22	540,912.08	51.28	22	27	22	27
ISCO-MW-4	584,325.53	540,918.26	44.67	15	20	15	20
ISCO-MW-5	584,250.24	540,698.22	47.81	25	30	25	30
ISCO-MW-6	584,302.97	540,784.57	48.78	27	32	27	32
ISCO-MW-7	584,334.67	540,870.99	46.3	18	23	18	23
ISCO-MW-8	584,360.38	540,879.45	50.19	19	24	19	24
ISCO-MW-9	584,422.18	541,020.50	48.79	20	25	20	25
IW1-BT-2	540,925.16	584,418.94	52.39	15	35	24	29
IW1-DR-1	540,926.52	584,458.57	57.46	20	35	25	30
IW-4S	540,871.99	584,354.81	50.80	31	36	31	36
PZ-1S	540,551.93	584,158.57	44.24	20	30	22	27
MW-5I	540,691.57	584,309.75	49.74	30	40	30	35
MW-6S	540,482.53	584,118.03	43.54	17	32	22	27
MW-9I	540,610.57	584,300.26	48.40	32	42	32	37
MW-10S	540,619.21	584,165.36	45.27	15	30	23	28
MW-11I	540,543.75	584,212.88	47.92	27	37	27	32
MW-14S	540,781.83	584,184.87	32.03	3.5	18.5	7 12.5	12 17.5
MW-15D	540,495.94	584,398.81	41.88	90	100	90	95
MW-19S	540,887.95	584,582.32	56.09	19.5	35.5	28	33
MW-23S	540,625.52	583,937.55	27.89	20	30	20	25
MW-23I	540,620.38	583,935.25	27.89	50	60	55	60
MW-23D	540,630.28	583,939.84	27.95	90	100	90	95
MW-24	540,404.11	584,071.49	42.46	15	35	20	25
MW-28	541,108.40	584,474.91	49.87	15	35	23	28
WCC-1S	540,461.09	583,762.17	24.88	28	38	30	35
WCC-1M	540,452.25	583,758.98	26.42	45	55	48	53
WCC-3M	535,031.00	578,117.00	27.31	38	48	30	35
EW-3	540,428.73	584,097.72	44.38	20	65	20	25

Notes:

TOC = Top of Inner Casing
MSL = Mean Sea Level
BGS = Below Ground Surface



Evor Phillips Leasing Company (EPLC) Superfund Site Old Bridge, New Jersey Groundwater Elevation Summary Table 2

W-II ID	TOC Elevation	Depth to Water ¹	GW Elevation
Well ID	(ft MSL)	(ft)	(ft MSL)
ISCO-MW-1	42.63	20.81	21.82
ISCO-MW-2	48.92	22.45	26.47
ISCO-MW-3	51.28	25.00	26.28
ISCO-MW-4	44.67	19.83	24.84
ISCO-MW-5	47.81	22.31	25.50
ISCO-MW-6	48.78	23.08	25.70
ISCO-MW-7	46.3	19.70	26.60
ISCO-MW-8	50.19	22.90	27.29
ISCO-MW-9	48.79	20.32	28.47
IW-BT-2	52.39	25.95	26.44
IW1-DR-1	57.46	30.91	26.55
IW-4S	50.80	24.80	26.00
PZ-1S	44.24	18.93	25.31
MW-5I	49.74	24.00	25.74
MW-6S	43.54	18.38	25.16
MW-9I	48.40	22.79	25.61
MW-10S	45.27	19.81	25.46
MW-11I	47.92	22.58	25.34
MW-14S	32.03	6.28	25.75
MW-15D	41.88	16.10	25.78
MW-19S	56.09	29.36	26.73
MW-23S	27.89	3.13	24.76
MW-23I	27.89	3.10	24.79
MW-23D	27.95	3.16	24.79
MW-24	42.46	17.52	24.94
MW-28	49.87	23.30	26.57
WCC-1S	24.88	1.40	23.48
WCC-1M	26.42	2.86	23.56
WCC-3M	27.31	3.25	24.06
EW-3	44.38	18.08	26.30

Notes:

(1) Depth to water is measured in feet below top of inner casing

GW= Groundwater

TOC = Top of Inner Casing

MSL = Mean Sea Level

BGS = Below Ground Surface

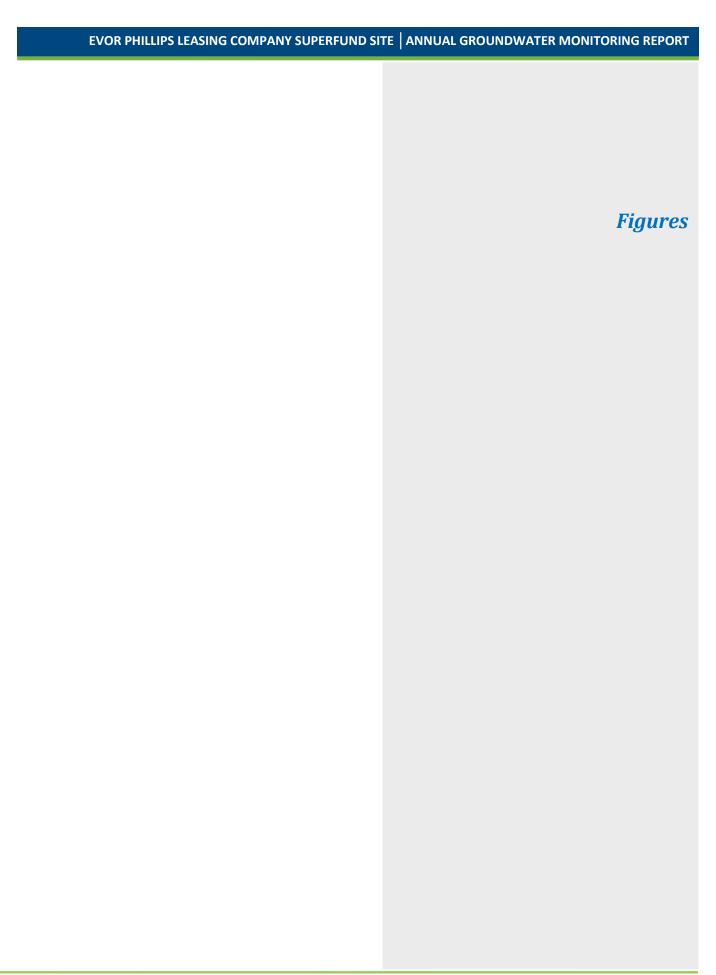


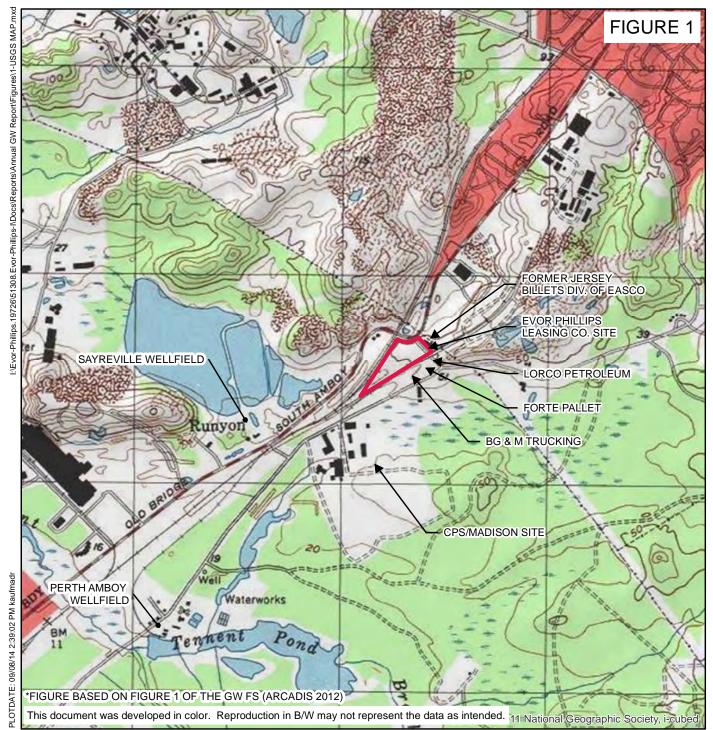
									Table 5									
Sample ID	NJ CLASS IIA	EB	EB - FILTERED	EB	EB - FILTERED	ТВ	EB	ТВ	EB	EB - FILTERED	ТВ	ТВ	ISCO-MW-1	ISCO-MW-1	ISCO-MW-2	ISCO-MW-2	ISCO-MW-3	ISCO-MW-3
Lab Sample ID	GROUNDWATER QUALITY	JB57365-9	JB57365-9F	JB57365-19	JB57365-19F	JB57365-21	JB57510-11	JB57510-12	JB59106-2	JB59106-2F	JB59106-4	JB57131-4	JB57365-1	JB57365-1F	JB57365-7	JB57365-7F	JB57365-10	JB57365-10F
Sample Date	CRITERIA (7/22/2010)	1/9/2014	1/9/2014	1/10/2014	1/10/2014	1/10/2014	1/13/2014	1/13/2014	2/3/2014	2/3/2014	2/3/2014	1/6/2014	1/9/2014	1/9/2014	1/10/2014	1/10/2014	1/9/2014	1/9/2014
Matrix	ug/L	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER	GW	GW - FILTERED	GW	GW - FILTERED	GW	GW - FILTERED
Volatile Organic Compounds (VOCs)		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	6000	ND (3.3)	1	ND (3.3)	-	ND (3.3)	ND (3.3)	ND (3.3)	ND (3.3)	- 1	ND (3.3)	ND (3.3)	ND (3.3)	- 1	102		ND (3.3)	- 1
Benzene	1	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	-	ND (0.28)	ND (0.28)	0.83	J -	ND (0.28)	-	ND (0.28)	-
Bromochloromethane	-	ND (0.42)	-	ND (0.42)	-	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	-	ND (0.42)	ND (0.42)	ND (0.42)	-	ND (0.42)	-	ND (0.42)	-
Bromodichloromethane	1	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-
Bromoform	4	ND (0.30)	-	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-
Bromomethane 2-Butanone (MEK)	10 300	ND (0.56) ND (3.2)	-	ND (0.56) ND (3.2)	-	ND (0.56) ND (3.2)	ND (0.56) ND (3.2)	ND (0.56) ND (3.2)	ND (0.56) ND (3.2)	-	ND (0.56) ND (3.2)	ND (0.56) ND (3.2)	ND (0.56) ND (3.2)	-	ND (0.56) 173	-	ND (0.56) ND (3.2)	-
Carbon disulfide	700	ND (0.18)	-	ND (0.18)	-	ND (0.18)	ND (0.18)	ND (0.18)	ND (0.18)		ND (0.18)	ND (0.18)	ND (0.18)	-	0.79		ND (0.18)	-
Carbon tetrachloride	1	ND (0.23)	-	ND (0.23)	-	ND (0.23)	ND (0.23)	ND (0.23)	ND (0.23)	-	ND (0.23)	ND (0.23)	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-
Chlorobenzene	50	ND (0.35)	-	ND (0.35)	-	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	-	ND (0.35)	ND (0.35)	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-
Chloroethane	-	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	-	ND (0.39)	ND (0.39)	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-
Chloroform	70	ND (0.25)	-	ND (0.25)	-	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	-	ND (0.25)	ND (0.25)	ND (0.25)	-	1.7	-	ND (0.25)	-
Chloromethane	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	-	ND (0.36)	ND (0.36)	ND (0.36)		ND (0.36)	-	ND (0.36)	-
Cyclohexane 1,2-Dibromo-3-chloropropane	0.02	ND (0.18) ND (1.3)		ND (0.18) ND (1.3)	-	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	-	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	0.31 ND (1.3)	J -	ND (0.18) ND (1.3)	-	ND (0.18) ND (1.3)	-
Dibromochloromethane	0.02	ND (1.3) ND (0.19)	-	ND (1.3) ND (0.19)	-	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3)	ND (1.3) ND (0.19)	-	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	-	ND (1.3) ND (0.19)	-	ND (1.3) ND (0.19)	-
1,2-Dibromoethane	0.03	ND (0.16)	-	ND (0.16)	-	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	-	ND (0.16)	ND (0.16)	ND (0.16)	-	ND (0.16)		ND (0.16)	
1,2-Dichlorobenzene	600	ND (0.20)	-	ND (0.20)	<u>-</u>	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)		ND (0.20)	ND (0.20)	ND (0.20)		ND (0.20)	-	ND (0.20)	<u> </u>
1,3-Dichlorobenzene	600	ND (0.31)	-	ND (0.31)	-	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	-	ND (0.31)	ND (0.31)	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-
1,4-Dichlorobenzene	75	ND (0.30)	-	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-
Dichlorodifluoromethane	1000	ND (0.63)	-	ND (0.63)	-	ND (0.63)	ND (0.63)	ND (0.63)	ND (0.63)	-	ND (0.63)	ND (0.63)	ND (0.63)		ND (0.63)	-	ND (0.63)	-
1,1-Dichloroethane 1,2-Dichloroethane	50 2	ND (0.26) ND (0.22)	-	ND (0.26) ND (0.22)	-	ND (0.26) ND (0.22)	ND (0.26) ND (0.22)	ND (0.26) ND (0.22)	ND (0.26) ND (0.22)	-	ND (0.26) ND (0.22)	ND (0.26) ND (0.22)	0.46	J -	ND (0.26) 1270	-	ND (0.26) 0.48 J	
1,1-Dichloroethene	1	ND (0.34)	-	ND (0.22)	-	ND (0.34)	ND (0.34)	ND (0.22)	ND (0.22)	_	ND (0.34)	ND (0.34)	ND (0.34)	-	ND (0.34)	-	ND (0.34)	+
cis-1,2-Dichloroethene	70	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	-	ND (0.24)	ND (0.24)	3.2	-	1.8	-	47.1	-
trans-1,2-Dichloroethene	100	ND (0.38)	-	ND (0.38)	-	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	-	ND (0.38)	ND (0.38)	ND (0.38)	-	3	-	ND (0.38)	-
1,2-Dichloropropane	1	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	-	ND (0.28)	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
cis-1,3-Dichloropropene	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	-	ND (0.15)	ND (0.15)	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-
trans-1,3-Dichloropropene 1.4-Dioxane	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	=	ND (0.21) ND (73)	-	ND (0.21)	-
1,4-Dioxane Ethylbenzene	700	ND (73) ND (0.21)		ND (73) ND (0.21)	-	ND (73) ND (0.21)	ND (73) ND (0.21)	ND (73) ND (0.21)	ND (73) ND (0.21)	-	ND (73) ND (0.21)	ND (73) ND (0.21)	ND (73) ND (0.21)	-	ND (73) ND (0.21)	-	ND (73) ND (0.21)	
Freon 113	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	ND (0.77)	ND (0.21)	ND (0.21)	-	ND (0.77)	ND (0.21)	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-
2-Hexanone	-	ND (1.7)	-	ND (1.7)	-	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	-	ND (1.7)	ND (1.7)	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-
Isopropylbenzene	700	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	-	ND (0.22)	ND (0.22)	2.4	-	ND (0.22)	-	ND (0.22)	-
Methyl Acetate	7000	ND (1.5)	-	ND (1.5)	-	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	-	ND (1.5)	ND (1.5)	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-
Methylcyclohexane Methyl Tert Butyl Ether	70	ND (0.15) ND (0.29)	-	ND (0.15) ND (0.29)	-	ND (0.15) ND (0.29)	ND (0.15) ND (0.29)	ND (0.15) ND (0.29)	ND (0.15)	-	ND (0.15) ND (0.29)	ND (0.15) ND (0.29)	ND (0.15) ND (0.29)	-	ND (0.15) ND (0.29)	-	ND (0.15) ND (0.29)	
4-Methyl-2-pentanone(MIBK)	-	ND (1.5)	-	ND (1.5)	-	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29) ND (1.5)	-	ND (0.29)	ND (1.5)	ND (1.5)	-	ND (1.5)	-	ND (0.29)	- -
Methylene chloride	3	ND (0.86)	-	ND (0.86)	-	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)	-	ND (0.86)	ND (0.86)	ND (0.86)	-	4.5	-	ND (0.86)	-
Styrene	100	ND (0.30)	-	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-
1,1,2,2-Tetrachloroethane Tetrachloroethene	1	ND (0.20) ND (0.25)	+ +	ND (0.20) ND (0.25)	-	ND (0.20) ND (0.25)	ND (0.20) ND (0.25)	ND (0.20) ND (0.25)	ND (0.20) ND (0.25)	-	ND (0.20) ND (0.25)	ND (0.20) ND (0.25)	ND (0.20) ND (0.25)	-	22.5	-	ND (0.20)	-
Toluene	600	ND (0.44)	-	ND (0.44)	-	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	-	ND (0.44)	ND (0.44)	ND (0.44)	-	1.7	-	ND (0.44)	-
1,2,3-Trichlorobenzene	-	ND (0.24)	-	ND (0.24)	-	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	-	ND (0.24)	ND (0.24)	ND (0.24)	-	ND (0.24)	-	ND (0.24)	<u> </u>
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	9 30	ND (0.22) ND (0.25)	-	ND (0.22) ND (0.25)	-	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	-	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) 0.46		ND (0.22) ND (0.25)		ND (0.22) ND (0.25)	-
1,1,2-Trichloroethane	30	ND (0.25) ND (0.21)	-	ND (0.25) ND (0.21)	-	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)	-	ND (0.25) ND (0.21)	ND (0.25) ND (0.21)	ND (0.21)	-	0.49	, - 	ND (0.25) ND (0.21)	-
Trichloroethene	1	ND (0.50)	<u>-</u> -	ND (0.50)	<u>-</u>	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)		ND (0.50)	ND (0.50)	23.1	<u> </u>	1.6	-	54.9	<u> </u>
Trichlorofluoromethane	2000	ND (0.33)	-	ND (0.33)	-	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	-	ND (0.33)	ND (0.33)	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-
Vinyl chloride m,p-Xylene	1 -	ND (0.41) ND (0.40)		ND (0.41) ND (0.40)	-	ND (0.41) ND (0.40)	ND (0.41) ND (0.40)	ND (0.41) ND (0.40)	ND (0.41) ND (0.40)	-	ND (0.41) ND (0.40)	ND (0.41) ND (0.40)	ND (0.41) ND (0.40)		ND (0.41) 0.43	<u> </u>	ND (0.41) ND (0.40)	+ +
o-Xylene	-	ND (0.40)	-	ND (0.19)	-	ND (0.19)	ND (0.19)	ND (0.40)	ND (0.19)	-	ND (0.19)	ND (0.40)	ND (0.40)	-		, ·	ND (0.19)	
Xylene (total)	1000	ND (0.19)	-	ND (0.19)	-	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	-	ND (0.19)	ND (0.19)	ND (0.19)	-	0.67	J -	ND (0.19)	<u> </u>
Total VOCs	-	0		0		0	0	0	0		0	0	52.16		1588.75		103.88	
GC/MS Volatile TIC																		
Total TIC, Volatile		0	- 1	0	- 1	0	0	0	0	-	0	0 1	0	1 - 1	7.2	J -	0 1	
Total Alkanes	-	0	-	0	-	0	0	0	0		0	0	0		0	-	0	<u> </u>
Metals Analysis	70	46		46	46		Ţ		42	46	,				200	40	46	
Chromium Iron	70 300	<10 -	<10 <100	<10	<10 <100	-	-	-	<10	<10 <100	-	-	<10	<10 5670	208	<10 22200	<10	<10 40400
Sodium	50000	<10000	-	<10000	-	-	-	-	<10000	-	-	-	18300	-	22300	-	18000	-
			· '		1					<u> </u>	•			<u> </u>			·	
General Chemistry	5000	10055		10055			Ţ		10000						100			
Solids, Total Dissolved Sulfate	500000 250000	<10000 <10000		<10000 <10000	-	-	-		<10000 <10000	-	-	-	206000 101000	-	433000 120000	-	011000	-
							1				1			1	,,,,,			

Sample ID	NI CLASS IIA	ISCO-MW-3-DUP	ISCO-MW-3-DUP	ISCO-MW-4	ISCO-MW-4	ISCO-MW-5	ISCO-MW-5	ISCO-MW-6	ISCO-MW-6	ISCO-MW-7	ISCO-MW-7	ISCO-MW-8	ISCO-MW-8	ISCO-MW-9	ISCO-MW-9	IW1-BT-2	IW1-BT-2
Lab Sample ID Sample Date	GROUNDWATER QUALITY	JB57365-11 1/9/2014	JB57365-11F 1/9/2014	JB59106-1 2/3/2014	JB59106-1F 2/3/2014	JB57365-3 1/9/2014	JB57365-3F 1/9/2014	JB57365-4 1/9/2014	JB57365-4F 1/9/2014	JB57365-18 1/10/2014	JB57365-18F 1/10/2014	JB57365-5 1/9/2014	JB57365-5F 1/9/2014	JB57365-20 1/10/2014	JB57365-20F 1/10/2014	JB57365-8 1/9/2014	JB57365-8F 1/9/2014
Matrix	CRITERIA (7/22/2010)	GW	GW - FILTERED	GW	GW - FILTERED	GW	GW - FILTERED	GW	GW - FILTERED	GW	GW - FILTERED	GW	GW - FILTERED	GW	GW - FILTERED	GW	GW - FILTERED
Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
olatile Organic Compounds (VOCs)													,				
cetone	6000	ND (3.3)	-	ND (3.3)	-	ND (3.3)	-	ND (3.3)	-	ND (3.3)	-	30	-	ND (3.3)	-	ND (3.3)	=
Benzene	1	ND (0.28)	-	ND (0.28)	-	0.69 J	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
Bromochloromethane Bromodichloromethane	- 1	ND (0.42) ND (0.21)	-	ND (0.42) ND (0.21)	-	ND (0.42) ND (0.21)	-	ND (0.42) ND (0.21)	-	ND (0.42) ND (0.21)	-	ND (0.42) ND (0.21)	-	ND (0.42) ND (0.21)		ND (0.42) ND (0.21)	-
Bromoform	4	ND (0.30)		ND (0.30)	1 -	ND (0.30)	-	ND (0.21)		ND (0.30)	-	ND (0.21)		ND (0.30)	-	ND (0.30)	_
Bromomethane	10	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-
2-Butanone (MEK)	300	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-	ND (3.2)	-
Carbon disulfide	700	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-
Carbon tetrachloride	1	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	ND (0.23)	-	0.8	-	0.65 J	-	ND (0.23)	-	ND (0.23)	-
Chlorobenzene Chloroethane	50	ND (0.35) ND (0.39)	-	ND (0.35) ND (0.39)	-	ND (0.35) ND (0.39)	-	ND (0.35) ND (0.39)	-	ND (0.35) ND (0.39)	-	ND (0.35) ND (0.39)	-	ND (0.35) ND (0.39)		ND (0.35) ND (0.39)	-
Chloroform	70	ND (0.25)	-	0.36		ND (0.25)	-	ND (0.39)	-	1.4	-	1.7	-	ND (0.39)	-	1.3	-
Chloromethane	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-
Cyclohexane	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-	ND (0.18)	-
1,2-Dibromo-3-chloropropane	0.02	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-	ND (1.3)	-
Dibromochloromethane	1	ND (0.19)	-	ND (0.19)		ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-	ND (0.19)	-
1,2-Dibromoethane	0.03	ND (0.16)	-	ND (0.16)	- +	ND (0.16)	-	ND (0.16)		ND (0.16)	-	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-
1,2-Dichlorobenzene 1,3-Dichlorobenzene	600 600	ND (0.20) ND (0.31)	-	ND (0.20) ND (0.31)	+ -	ND (0.20) ND (0.31)	-	ND (0.20) ND (0.31)	-	ND (0.20) ND (0.31)	-	ND (0.20) ND (0.31)	-	ND (0.20) ND (0.31)		ND (0.20) ND (0.31)	
1,4-Dichlorobenzene	75	ND (0.31)	-	ND (0.31)	+	ND (0.31)	-	ND (0.31)	+	ND (0.31)	-	ND (0.30)	-	ND (0.31)	-	ND (0.30)	+
Dichlorodifluoromethane	1000	ND (0.63)	-	ND (0.63)	- +	ND (0.63)	- 1	ND (0.63)	- 1	ND (0.63)	-	ND (0.63)	-	ND (0.63)	-	ND (0.63)	- -
1,1-Dichloroethane	50	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-	ND (0.26)	-
1,2-Dichloroethane	2	0.5 J	-	0.98	J -	46.7	-	0.56	J -	1.1	-	36.8	-	ND (0.22)	-	ND (0.22)	-
1,1-Dichloroethene	1	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-	ND (0.34)	
cis-1,2-Dichloroethene trans-1,2-Dichloroethene	70 100	56.8 ND (0.38)	-	ND (0.24) ND (0.38)	-	9.2 ND (0.38)	-	1.4 ND (0.38)	-	ND (0.24) ND (0.38)	-	0.58 J ND (0.38)	-	2.6 ND (0.38)	-	ND (0.24) ND (0.38)	-
1,2-Dichloropropane	100	ND (0.38) ND (0.28)	-	ND (0.38) ND (0.28)		ND (0.38) ND (0.28)	-	ND (0.38) ND (0.28)		ND (0.38) ND (0.28)	-	ND (0.38) ND (0.28)	-	ND (0.38) ND (0.28)	-	ND (0.38) ND (0.28)	-
cis-1,3-Dichloropropene	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-
trans-1,3-Dichloropropene	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-
1,4-Dioxane	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-	ND (73)	-
Ethylbenzene	700	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-
Freon 113	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-
2-Hexanone Isopropylbenzene	700	ND (1.7) ND (0.22)	-	ND (1.7) ND (0.22)	- +	ND (1.7) 0.61 J	-	ND (1.7) ND (0.22)	-	ND (1.7) ND (0.22)	-	ND (1.7) ND (0.22)	-	ND (1.7) ND (0.22)	-	ND (1.7) ND (0.22)	
Methyl Acetate	7000	ND (0.22)	-	ND (0.22)	-	ND (1.5)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (1.5)	-	ND (0.22)	-
Methylcyclohexane	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-
Methyl Tert Butyl Ether	70	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-	1.1	-	ND (0.29)	-	ND (0.29)	-
4-Methyl-2-pentanone(MIBK)	3	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-
Methylene chloride Styrene	100	ND (0.86) ND (0.30)	-	2.6 ND (0.30)	-	8.4 ND (0.30)	-	ND (0.86) ND (0.30)	-	ND (0.86) ND (0.30)	-	2.3 ND (0.30)	-	ND (0.86) ND (0.30)	-	ND (0.86) ND (0.30)	-
1,1,2,2-Tetrachloroethane	1	ND (0.20)	-	ND (0.20)	-	0.29 J	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-
Tetrachloroethene	1	1.6	-	ND (0.25)	-	0.79 J	-	ND (0.25)	-		J -	1.2	-		J -	ND (0.25)	-
Toluene 1,2,3-Trichlorobenzene	600	ND (0.44) ND (0.24)		ND (0.44) ND (0.24)	-	ND (0.44) ND (0.24)	-	ND (0.44) ND (0.24)		ND (0.44) ND (0.24)	-	ND (0.44) ND (0.24)		ND (0.44) ND (0.24)	-	ND (0.44) ND (0.24)	-
1,2,4-Trichlorobenzene	9	ND (0.22)	-	ND (0.22)	- +	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-
I,1,1-Trichloroethane	30	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	-	ND (0.25)	
I,1,2-Trichloroethane Frichloroethene	3	ND (0.21)	-	ND (0.21)	<u> </u>	ND (0.21)	-	ND (0.21)	- -	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-	ND (0.21)	+ -
Frichlorofluoromethane	2000	ND (0.33)	-	ND (0.33)	+	ND (0.33)	-	ND (0.33)		ND (0.33)	-	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-
/inyl chloride	1	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-
n,p-Xylene	-	ND (0.40)	-	ND (0.40)	- 1	ND (0.40)	-	ND (0.40)		ND (0.40)	-	ND (0.40)		ND (0.40)	- 1	ND (0.40)	
o-Xylene Kylene (total)	1000	ND (0.19) ND (0.19)	-	ND (0.19) ND (0.19)	+ -	ND (0.19) ND (0.19)	+	ND (0.19) ND (0.19)		ND (0.19) ND (0.19)	-	ND (0.19) ND (0.19)	-	ND (0.19) ND (0.19)	-	ND (0.19) ND (0.19)	
Fotal VOCs	-	122.9		` '	+	83.78	 	3.96	+	6.21		80.13		47.2	+	2.9	+
	•		·	<u> </u>		· '	<u> </u>				•			· .	·		
GC/MS Volatile TIC					Ţ												
otal TIC, Volatile otal Alkanes	-	0	-			0	-	0	-	0	-	0	-	12	J -		-
otal randites	<u>-</u>	U	-	J	<u> </u>	J	<u> </u>	J		<u> </u>	<u> </u>	J		· ·	- 1	U	
Metals Analysis																	
Chromium	70	<10	<10					<10	<10		12.4	677		162		<10	<10
ron Godium	300 50000	18800	42600	15600		29000		54200	165	14300	145	599000	+	- <10000		42000	235
oulum	00000	10000	-	10000	-	29000	-	54200	- 1	14300	-	299000	-	<10000	-	42000	- 1
General Chemistry																	
Solids, Total Dissolved	500000	530000				307000						1300000		203000		247000	
Sulfate	250000	214000	-	56300		154000	-	153000	-	31700	-	682000	-	106000	-	56200	-

Sample ID		IW1-DR-1	IW1-DR-1	IW-4S	PZ-1S	PZ-1S	MW-5I	MW-5I	MW-6S	MW-9I	MW-9I-DUP	MW-10S	MW-10S	MW-11I	MW-11I	MW-14S	MW-14S
Lab Sample ID	NJ CLASS IIA	JB57365-12	JB57365-12F	JB57365-6	JB57365-2	JB57365-2F	JB57365-17	JB57365-17F	JB57510-2	JB57510-3	JB57510-4	JB57365-13	JB57365-13F	JB57365-16	JB57365-16F	JB57365-15	JB57365-15F
Sample Date	GROUNDWATER OUALITY	1/10/2014	1/10/2014	1/9/2014	1/9/2014	1/9/2014	1/10/2014	1/10/2014	1/13/2014	1/13/2014	1/13/2014	1/10/2014	1/10/2014	1/10/2014	1/10/2014	1/10/2014	1/10/2014
Matrix	ug/L	GW	GW - FILTERED	GW	GW	GW - FILTERED	GW	GW - FILTERED	GW	GW	GW	GW	GW	GW	GW	GW	GW
Unit	t	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds (VOCs)	0000	ND (2.2)		ND (3.3)	ND (3.3)	1	ND (3.3)		ND (3.3)	ND (2.2)	ND (3.3)	ND (3.3)		ND (3.3)	1	ND (3.3)	
Acetone Benzene	6000	ND (3.3) ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (3.3) ND (0.28)	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
Bromochloromethane	-	ND (0.42)	-	ND (0.42)	ND (0.42)	-	ND (0.42)	-	ND (0.42)	ND (0.42)	ND (0.42)	ND (0.42)	-	ND (0.42)	-	ND (0.42)	-
Bromodichloromethane	1	ND (0.21)	-	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-
Bromoform	4	ND (0.30)	-	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-
Bromomethane	10	ND (0.56)	-	ND (0.56)	ND (0.56)	-	ND (0.56)	-	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	-	ND (0.56)	-	ND (0.56)	-
2-Butanone (MEK)	300	ND (3.2) ND (0.18)	-	ND (3.2)	ND (3.2)	-	ND (3.2)	-	ND (3.2)	ND (3.2)	ND (3.2) ND (0.18)	ND (3.2)	-	ND (3.2) ND (0.18)	-	ND (3.2)	-
Carbon disulfide Carbon tetrachloride	700	ND (0.18)	-	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	-	ND (0.18) ND (0.23)	-	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18)	ND (0.18) ND (0.23)	-	ND (0.18)	-	ND (0.18) ND (0.23)	-
Chlorobenzene	50	ND (0.35)	-	ND (0.35)	ND (0.35)	-	ND (0.35)	-	ND (0.35)	ND (0.35)	ND (0.35)	ND (0.35)	-	ND (0.35)	-	ND (0.35)	-
Chloroethane	-	ND (0.39)	-	ND (0.39)	ND (0.39)	-	ND (0.39)	-	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	-	ND (0.39)	-	ND (0.39)	-
Chloroform	70	ND (0.25)	-	ND (0.25)	0.63	J -	ND (0.25)	-	ND (0.25)	ND (0.25)	ND (0.25)	0.62 J	-	0.27	J -	ND (0.25)	-
Chloromethane	-	ND (0.36)	-	ND (0.36)	ND (0.36)	-	ND (0.36)	-	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	-	ND (0.36)	-	ND (0.36)	-
Cyclohexane 1,2-Dibromo-3-chloropropane	0.02	ND (0.18) ND (1.3)	-	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	-	ND (0.18) ND (1.3)	-	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	-	ND (0.18) ND (1.3)	-	ND (0.18) ND (1.3)	-
Dibromochloromethane	0.02	ND (1.3) ND (0.19)		ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	-	ND (1.3) ND (0.19)	+ -	ND (1.3)	ND (1.3)	ND (1.3)	ND (1.3) ND (0.19)	-	ND (1.3) ND (0.19)	-	ND (1.3) ND (0.19)	-
1,2-Dibromoethane	0.03	ND (0.16)	-	ND (0.16)	ND (0.16)	-	ND (0.16)	-	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	-	ND (0.16)	-	ND (0.16)	-
1,2-Dichlorobenzene	600	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-
1,3-Dichlorobenzene	600	ND (0.31)	-	ND (0.31)	ND (0.31)		ND (0.31)	-	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	-	ND (0.31)	-	ND (0.31)	-
1,4-Dichlorobenzene	75	ND (0.30)	-	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	-	ND (0.30)	-	ND (0.30)	-
Dichlorodifluoromethane 1,1-Dichloroethane	1000 50	ND (0.63) ND (0.26)	+ -	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	-	ND (0.63) ND (0.26)	+ -	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	-	ND (0.63) ND (0.26)	-	ND (0.63) ND (0.26)	-
1,2-Dichloroethane	2	ND (0.22)	-	ND (0.22)	0.56	J -	1.9	-	ND (0.22)	ND (0.22)	ND (0.22)	1.2	-	ND (0.22)	-	ND (0.22)	-
1,1-Dichloroethene	1	ND (0.34)	-	ND (0.34)	ND (0.34)	-	ND (0.34)	-	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	-	ND (0.34)	-	ND (0.34)	-
cis-1,2-Dichloroethene	70	ND (0.24)	-	0.8 J	1.4	-	ND (0.24)	-	ND (0.24)	ND (0.24)	ND (0.24)	5.9	-	ND (0.24)	-	ND (0.24)	-
trans-1,2-Dichloroethene	100	ND (0.38)	-	ND (0.38)	ND (0.38)	-	ND (0.38)	-	ND (0.38)	ND (0.38)	ND (0.38)	ND (0.38)	-	ND (0.38)	-	ND (0.38)	-
1,2-Dichloropropane	1	ND (0.28)	-	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	ND (0.28)	ND (0.28)	ND (0.28)	-	ND (0.28)	-	ND (0.28)	-
cis-1,3-Dichloropropene trans-1,3-Dichloropropene	-	ND (0.15) ND (0.21)	-	ND (0.15) ND (0.21)	ND (0.15) ND (0.21)	-	ND (0.15) ND (0.21)	- -	ND (0.15) ND (0.21)	ND (0.15) ND (0.21)	ND (0.15) ND (0.21)	ND (0.15) ND (0.21)	-	ND (0.15) ND (0.21)	-	ND (0.15) ND (0.21)	- -
1,4-Dioxane	-	ND (73)	-	ND (73)	ND (73)	-	ND (73)	-	ND (73)	ND (73)	ND (73)	ND (73)	-	ND (73)	-	ND (73)	-
Ethylbenzene	700	ND (0.21)	-	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	-	ND (0.21)	-	ND (0.21)	-
Freon 113	-	ND (0.77)	-	ND (0.77)	ND (0.77)	-	ND (0.77)	-	ND (0.77)	ND (0.77)	ND (0.77)	ND (0.77)	-	ND (0.77)	-	ND (0.77)	-
2-Hexanone	-	ND (1.7)	-	ND (1.7)	ND (1.7)	-	ND (1.7)	-	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)	-	ND (1.7)	-	ND (1.7)	-
Isopropylbenzene Methyl Acetate	700 7000	ND (0.22) ND (1.5)	-	ND (0.22) ND (1.5)	ND (0.22) ND (1.5)	-	ND (0.22) ND (1.5)	-	ND (0.22) ND (1.5)	ND (0.22) ND (1.5)	ND (0.22) ND (1.5)	ND (0.22) ND (1.5)	-	ND (0.22) ND (1.5)	-	ND (0.22) ND (1.5)	-
Methylcyclohexane	-	ND (0.15)	-	ND (0.15)	ND (0.15)	-	ND (0.15)	-	ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	-	ND (0.15)	-	ND (0.15)	-
Methyl Tert Butyl Ether	70	ND (0.29)	-	ND (0.29)	ND (0.29)	-	ND (0.29)	-	ND (0.29)	ND (0.29)	ND (0.29)	ND (0.29)	-	ND (0.29)	-	ND (0.29)	-
4-Methyl-2-pentanone(MIBK)	- 3	ND (1.5) ND (0.86)	-	ND (1.5)	ND (1.5)	-	ND (1.5)	-	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	-	ND (1.5)	-	ND (1.5)	-
Methylene chloride Styrene	100	ND (0.30)	-	ND (0.86) ND (0.30)	ND (0.86) ND (0.30)	-	ND (0.86) ND (0.30)	-	ND (0.86) ND (0.30)	ND (0.86) ND (0.30)	ND (0.86) ND (0.30)	ND (0.86) ND (0.30)	-	ND (0.86) ND (0.30)	-	ND (0.86) ND (0.30)	-
1,1,2,2-Tetrachloroethane	1	ND (0.20)	-	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	-	ND (0.20)	-	ND (0.20)	-
Tetrachloroethene	1 600	0.72 ND (0.44)	J -	ND (0.25) ND (0.44)	ND (0.25)	- 7	ND (0.25) ND (0.44)		ND (0.25) ND (0.44)	ND (0.25)	ND (0.25)	ND (0.25)	-	ND (0.25) ND (0.44)		ND (0.25)	-
Toluene 1,2,3-Trichlorobenzene	-	ND (0.44) ND (0.24)	-	ND (0.44) ND (0.24)	ND (0.44) ND (0.24)	-	ND (0.44) ND (0.24)	-	ND (0.44) ND (0.24)	ND (0.44) ND (0.24)	ND (0.44) ND (0.24)	ND (0.44) ND (0.24)	-	ND (0.44) ND (0.24)	-	ND (0.44) ND (0.24)	-
1,2,4-Trichlorobenzene	9	ND (0.22)	-	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	-	ND (0.22)	-	ND (0.22)	-
1,1,1-Trichloroethane 1,1,2-Trichloroethane	30	ND (0.25) ND (0.21)		ND (0.25)	ND (0.25)		ND (0.25) ND (0.21)		0.42 ND (0.21)	J ND (0.25)	ND (0.25)	ND (0.25)		1.6 ND (0.21)	-	ND (0.25) ND (0.21)	-
1,1,2-1 richloroethane Trichloroethene	1	ND (0.21)		ND (0.21) 2.4	ND (0.21)	-	ND (0.21) ND (0.50)	-	ND (0.21) ND (0.50)	ND (0.21) ND (0.50)	ND (0.21) ND (0.50)	ND (0.21) 5.5	-	ND (0.21) ND (0.50)	-	ND (0.21) ND (0.50)	-
Trichlorofluoromethane	2000	ND (0.33)	-	ND (0.33)	ND (0.33)	-	ND (0.33)	-	ND (0.33)	ND (0.33)	ND (0.33)	ND (0.33)	-	ND (0.33)	-	ND (0.33)	-
Vinyl chloride	1	ND (0.41)	-	ND (0.41)	ND (0.41)	-	ND (0.41)		ND (0.41)	ND (0.41)	ND (0.41)	ND (0.41)	-	ND (0.41)	-	ND (0.41)	-
m,p-Xylene o-Xylene	-	ND (0.40) ND (0.19)	-	ND (0.40) ND (0.19)	ND (0.40) ND (0.19)	-	ND (0.40) ND (0.19)	-	ND (0.40) ND (0.19)	ND (0.40) ND (0.19)	ND (0.40) ND (0.19)	ND (0.40) ND (0.19)	-	ND (0.40) ND (0.19)	-	ND (0.40) ND (0.19)	-
Xylene (total)	1000	ND (0.19)	-	ND (0.19)	ND (0.19)		ND (0.19)		ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)		ND (0.19)		ND (0.19)	<u>-</u>
Total VOCs	-	1.82		3.2	4.59		1.9		0.42	0	0	13.22		1.87		0	
GC/MS Volatile TIC																	
Total TIC, Volatile	-	0	- 1	0	0	- 1	0 1	- 1	0	0	0	0	- 1	0	- 1	0	-
Total Alkanes	-	0	-	0	0	- 1	0	-	0	0	0	0	-	0	-	0	-
Afishala Analysia																	
Metals Analysis Chromium	70	<10	<10	1 - 1	<10	<10	<10	<10	1 -	- 1	-	<10	<10	<10	<10	<10	<10
Iron	300	-	27500		- 10	<100	- 10	134	-	-	-	-	<100	-	<100	- 10	<100
Sodium	50000	12200	-	-	16500	-	<10000	-	-	-	-	25500		<10000	-	229000	-
Conoral Chamistry																	
General Chemistry Solids, Total Dissolved	500000	218000	1 - 1		384000	1 - 1	205000	1 - 1	1 -	- 1		214000		118000		1090000	
Sulfate	250000	101000	-	-		-	68000	-		-	-	84800		39900		342000	<u>-</u>
			-									<u> </u>					

	County ID	MW-14SD	MW-14SD	MW-15D	MW-19S	MW-23S	MW-23I	MW-23D	MW-24	MW-28	WCC-1S	WCC-1M	N/CC 284	FW 2
	Sample ID NJ CLASS IIA Lab Sample ID	JB57365-14	JB57365-14F	JB57510-9	JB57510-7	JB57131-2	JB57131-3	JB57131-1	JB57510-1	JB57510-8	JB57510-6	JB57510-5	WCC-3M JB57510-10	EW-3 JB59106-3
	Sample Date	1/10/2014	1/10/2014	1/13/2014	1/13/2014	1/6/2014	1/6/2014	1/6/2014	1/13/2014	1/13/2014	1/13/2014	1/13/2014	1/13/2014	2/3/2014
	Matrix ug/L	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW	GW
	Unit	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Volatile Organic Compounds						1			1	1	1	1		
Acetone	6000	ND (3.3) ND (0.28)	-	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)	ND (3.3) ND (0.28)
Benzene Bromochloromethane	1 -	ND (0.28) ND (0.42)	-	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)	ND (0.28) ND (0.42)
Bromodichloromethane	1	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
Bromoform	4	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)
Bromomethane	10	ND (0.56)	-	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)	ND (0.56)
2-Butanone (MEK)	300	ND (3.2)	-	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)	ND (3.2)
Carbon disulfide Carbon tetrachloride	700	ND (0.18) ND (0.23)	-	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)	ND (0.18) ND (0.23)
Chlorobenzene	50	ND (0.25)	-	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.35)	ND (0.35)
Chloroethane	-	ND (0.39)	-	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)	ND (0.39)
Chloroform	70	ND (0.25)	-	ND (0.25)	ND (0.25)	1.6	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	ND (0.25)	0.46	J 0.5	J ND (0.25)
Chloromethane	-	ND (0.36)	-	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)	ND (0.36)
Cyclohexane	0.02	ND (0.18) ND (1.3)	-	ND (0.18)	1.1 ND (1.3)	J ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)	ND (0.18) ND (1.3)
1,2-Dibromo-3-chloropropane Dibromochloromethane	0.02	ND (1.3) ND (0.19)	-	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)	ND (1.3) ND (0.19)
1,2-Dibromoethane	0.03	ND (0.16)	-	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)	ND (0.16)
1,2-Dichlorobenzene	600	ND (0.20)	-	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)	ND (0.20)
1,3-Dichlorobenzene	600	ND (0.31)	-	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)	ND (0.31)
1,4-Dichlorobenzene	75 1000	ND (0.30) ND (0.63)	-	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)	ND (0.30) ND (0.63)
Dichlorodifluoromethane 1,1-Dichloroethane	1000 50	ND (0.63) ND (0.26)		ND (0.63) ND (0.26)	0.42	J ND (0.63)	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)	ND (0.63) ND (0.26)
1,2-Dichloroethane	2	ND (0.22)	-	ND (0.22)	ND (0.22)	15.6	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	35.1	ND (0.22)	ND (0.22)
1,1-Dichloroethene	1	ND (0.34)	-	2	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	ND (0.34)	0.43	J ND (0.34)
cis-1,2-Dichloroethene	70	ND (0.24)	-	ND (0.24)	5.4	5.1	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	7.7	ND (0.24)	ND (0.24)
trans-1,2-Dichloroethene 1,2-Dichloropropane	100	ND (0.38) ND (0.28)	-	ND (0.38) ND (0.28)	1.8 ND (0.28)	ND (0.38) ND (0.28)	ND (0.38) ND (0.28)	ND (0.38) ND (0.28)	ND (0.38) ND (0.28)	ND (0.38) ND (0.28)	ND (0.38) ND (0.28)	ND (0.38) ND (0.28)	ND (0.38) ND (0.28)	ND (0.38) ND (0.28)
cis-1,3-Dichloropropene	-	ND (0.28)	-	ND (0.28) ND (0.15)	ND (0.26)	ND (0.28)	ND (0.26) ND (0.15)	ND (0.28)	ND (0.28)	ND (0.28) ND (0.15)	ND (0.28)	ND (0.15)	ND (0.28)	ND (0.28)
trans-1,3-Dichloropropene	-	ND (0.21)	-	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
1,4-Dioxane	-	ND (73)	-	ND (73)	ND (73)	ND (73)	ND (73)	ND (73)	ND (73)	ND (73)	ND (73)	ND (73)	ND (73)	ND (73)
Ethylbenzene	700	ND (0.21)	-	ND (0.21)	5.3	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
Freon 113 2-Hexanone		ND (0.77) ND (1.7)	-	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)	ND (0.77) ND (1.7)
Isopropylbenzene	700	ND (0.22)	-	ND (0.22)	0.77	J ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)	0.28	J ND (0.22)	ND (0.22)	ND (0.22)	ND (0.22)
Methyl Acetate	7000	ND (1.5)	-	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)	ND (1.5)
Methylcyclohexane	-	ND (0.15)	-	ND (0.15)	1.8	J ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)	0.4	J ND (0.15)	ND (0.15)	ND (0.15)	ND (0.15)
Methyl Tert Butyl Ether 4-Methyl-2-pentanone(MIBK)	70	ND (0.29) ND (1.5)	-	ND (0.29) ND (1.5)	ND (0.29) ND (1.5)	ND (0.29) ND (1.5)	ND (0.29) ND (1.5)	0.63 ND (1.5)	J ND (0.29) ND (1.5)	ND (0.29) ND (1.5)	ND (0.29) ND (1.5)	ND (0.29) ND (1.5)	1.3 ND (1.5)	ND (0.29) ND (1.5)
Methylene chloride	3	ND (0.86)	-	ND (0.86)	ND (0.86)	4.7	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)	ND (0.86)
Styrene	100	ND (0.30)	-	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)	ND (0.30)
1,1,2,2-Tetrachloroethane Tetrachloroethene	1 1	ND (0.20) ND (0.25)	-	ND (0.20) ND (0.25)	ND (0.20) ND (0.25)	0.36 J 0.27 J	ND (0.20) ND (0.25)	ND (0.20) ND (0.25)	ND (0.20) ND (0.25)	ND (0.20) 0.27	ND (0.20) J ND (0.25)	0.29 0.27	J 0.23 J ND (0.25)	J 0.48 J ND (0.25)
Toluene	600	ND (0.44)	-	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)	ND (0.44)
1,2,3-Trichlorobenzene		ND (0.24)	-	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)	ND (0.24)
1,2,4-Trichlorobenzene 1,1,1-Trichloroethane	9 30	ND (0.22) ND (0.25)	-	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)	ND (0.22) ND (0.25)
1,1,2-Trichloroethane	3	ND (0.21)	<u>-</u>	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)	ND (0.21)
Trichloroethene	1	ND (0.50)	-	ND (0.50)	4 ND (0.00)	7.3 ND (0.33)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.50)	5.1 ND (0.22)	ND (0.50)	ND (0.50)
Trichlorofluoromethane Vinyl chloride	2000	ND (0.33) ND (0.41)	-	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)	ND (0.33) ND (0.41)
m,p-Xylene	-	ND (0.40)	-	ND (0.40)	1.3	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)	ND (0.40)
o-Xylene	- 1000	ND (0.19)	-	ND (0.19)	1.3	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)	ND (0.19)
Xylene (total) Total VOCs	1000	ND (0.19) 0	-	ND (0.19) 2	2.5 23.09	ND (0.19) 34.93	ND (0.19) 0	ND (0.19) 0.63	ND (0.19) 0	ND (0.19) 0.95	ND (0.19) 0	ND (0.19) 48.92	ND (0.19) 2.46	ND (0.19) 0.48
	•		<u> </u>											
GC/MS Volatile TIC					155							, <u> </u>		
Total TIC, Volatile Total Alkanes	-	0	-	0	175.9 0	J 0	0	0	0	150.9	J 0	7.7	J 0	0
			1	. , ,		<u> </u>		,	ı	, , , ,	, , , ,			
Metals Analysis														
Chromium Iron	70 300	<10	<10 <100	-	-	-	-	-	-	-	-	-	-	-
Sodium	50000	228000	<100	-	-	-	-	-	-	-	-	-	-	+
	,		1			1		1	1					
General Chemistry														
Solids, Total Dissolved Sulfate	500000 250000	1440000 394000	-	-		<u> </u>	-		-	-		-	-	
	200000		1	L	1		1	1	1			1	į.	





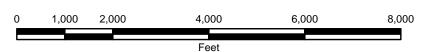
ADAPTED FROM: SOUTH AMBOY, NEW JERSEY USGS QUADRANGLE U.S.G.S 7.5 MIN. QUAD

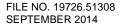


EVOR PHILLIPS LEASING COMPANY SUPERFUND SITE OLD BRIDGE, NEW JERSEY

SITE LOCATION









SITE

FIGURE 2

NOTES:

- RAIL LINE FOULING/OBSTRUCTION LIMITS ARE 15' FROM CENTERLINE OF RAIL IN EACH DIRECTION.
- 2. HORIZONTAL DATUM NAD 1983, VERTICAL DATUM NAVD 1988.
- 3. EXISTING GRADE ELEVATIONS AND LOCATIONS WERE OBTAINED BY MASER CONSULTING, PA ON AUGUST 10, 2012 & JANUARY 14, 2013.
- 4. WELL WCC-3M, LOCATED DOWNGRADIENT ON THE CPS/MADISON SITE AND NOT SHOWN, WAS INCLUDED IN BASELINE/ANNUAL SAMPLING.

EVOR PHILLIPS LEASING COMPANY SUPERFUND SITE OLD BRIDGE, NEW JERSEY

> SITE PLAN WITH WELL LOCATIONS



FILE NO. 19726.51308-FIG2 SEPTEMBER 2014





FIGURE 3

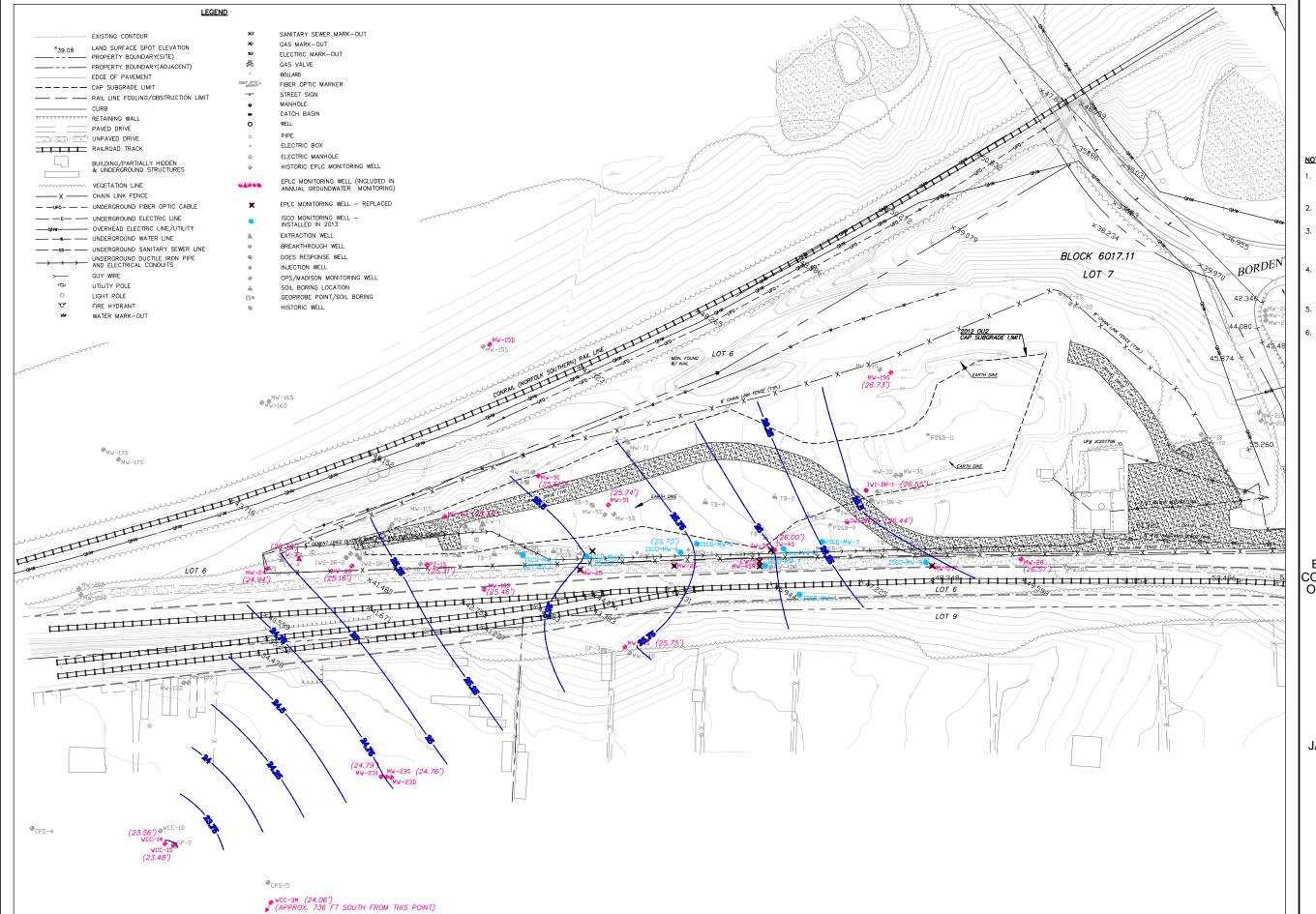
- EXISTING GRADE ELEVATIONS AND LOCATIONS WERE OBTAINED BY MASER CONSULTING, PA ON AUGUST 10, 2012 & JANUARY 14, 2013.
- . ALL MONITORING WELLS AND DEPTHS SHOWN WERE USED FOR ISCO BASELINE SAMPLING AND SOME WILL BE USED FOR PERFORMANCE MONITORING (WITH THE EXCEPTION OF IW-5, EW-1, EW-2, AND EW-5). WELLS MW-23S, MW-23I, MW-23D, WCC-1S WCC-1M, AND WCC-3M, LOCATED DOWNGRADIENT ON THE CPS/MADISON SITE AND NOT SHOWN, WERE INCLUDED IN BASELINE SAMPLING.

COMPANY SUPERFUND SITE OLD BRIDGE, NEW JERSEY



FILE NO. 19726.51308-FIG3 SEPTEMBER 2014









NOTES:

- . RAIL LINE FOULING/OBSTRUCTION LIMITS ARE 15' FROM CENTERLINE OF RAIL IN EACH DIRECTION.
- HORIZONTAL DATUM NAD 1983, VERTICAL DATUM NAVD 1988.
- EXISTING GRADE ELEVATIONS AND LOCATIONS WERE OBTAINED BY MASER CONSULTING, PA ON AUGUST 10, 2012 & JANUARY 14, 2013.
- WELL WCC-3M, LOCATED DOWNGRADIENT ON THE CPS/MADISON SITE AND NOT SHOWN, WAS INCLUDED IN BASELINE SAMPLING.
- 5. GROUNDWATER ELEVATIONS ARE SHOWN IN FEET MSL.
- 6. SIX WELLS WITHIN A LOCALIZED PERCHED GROUNDWATER ZONE (ISCO—MW—2, ISCO—MW—3, ISCO—MW—4, ISCO—MW—7, ISCO—MW—8, AND ISCO—MW—9) AND TWO DEEP WELLS (MW—15D AND MW—23D) WERE NOT CONSIDERED IN THE EVALUATION OF THE SHALLOW GOUNDWATER ELEVATION CONTOURS.

EVOR PHILLIPS LEASING COMPANY SUPERFUND SITE OLD BRIDGE, NEW JERSEY

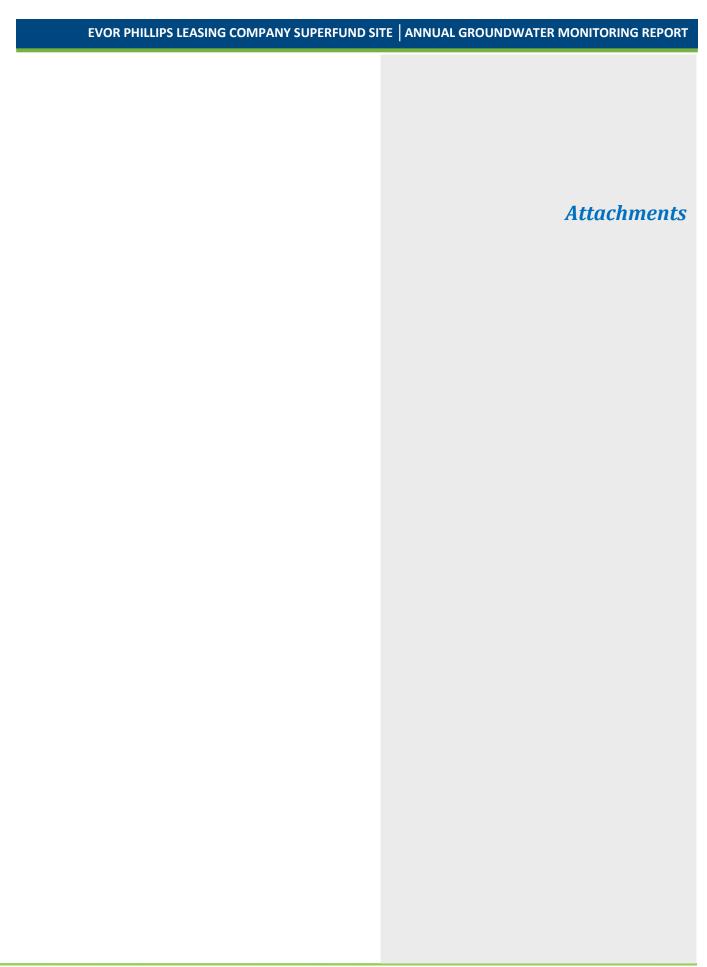
GROUNDWATER
CONTOURS IN THE
SHALLOW AQUIFER JANUARY/FEBRUARY 2014



FILE NO. 19726.51308-FIG4 SEPTEMBER 2014







Attachment 1:
Monitoring Well Boring
Logs, Forms A & B

New Jersey State Department of Environmental Protection Bureau of Water Allocation and Well Permitting Mail Code 401-03 PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number **E201317413**

MONITORING WELL RECORD

PROPERTY	OWNER: 9	SPIRAL MET.		JAMING WEI	<u>EL RECORD</u>			
	_		ALS					
	ganization: S ₁		G 110 1 04	2.404				
Address: 23	33 Wilshire Bly	d Santa Monic	ca, California 90)401				
WELL LOCATION: EVOI Phillips Leasing Company								
Address: 33	336 Bordentow	n Ave						
County: Mic	County: Middlesex Municipality: Old Bridge Twp Lot: 7 Block: 6017.11							
Easting (X):	Easting (X): 540639 Northing (Y): 584216 DATE WELL STARTED: November 26, 2013							
Coordii	nate System: N	J State Plane (NAD83) - USFI	EET DA	ATE WELL COMI	PLETED: November	26, 2013	
WELL USE:	MONITOR	ING						
Other Use(s)	:				Local ID: ISC	CO-MW-1		
WELL CON	STRUCTION	Ī						
Total Depth	Drilled (ft.):	29	Finished We	ll Depth (ft.):	29	Well Surface: Abo	ve Grade	
Depth to Depth to Diameter Material Wgt/Rating/Screen # Used Top (ft.) Bottom (ft.) (inches) (lbs/ch no.)								
Borehole								
Casing	0	5	2		PVC	S	Sch 40	
Screen	5	29	2		PVC		.010	
	Depth to	Depth to	Outer	Inner		Material		
T	Top (ft.)	Bottom (ft.)	Diameter (in.)	Diameter (in)	Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)	
Grout	0	3	10	2	1	10	2	
Gravel Pack	3	29	10	2		Morie #1		
_	hod: Gravity			Dri	lling Method: Holl	ow Stem Augers		
ADDITIONAL INFORMATION Protective Casing: Yes Pump Capacity: _ gpm Static Water Level: 20 ft. below land surface Total Design Head: _ ft. Water Level Measure Tool: Tape Drilling Fluid: Well Development Period: 1 hrs. Drill Rig: Geoprobe 7720 Method of Development: Submersible Health and Safety Plan Submitted? Yes								
Pump Type:					Ž			
ATTACHMENTS:								
GEOLOGIC								
0 - 29: Brown	SM - Silty sa	nds, sand-silt n	nixtures					
ADDITION	AL INFORMA	ATION:						

	John Brass,		ENVIRONMENTAL PROBING
Driller of Record:	MONITORING LICENSE # 545089	Company:	INVESTIGATION



MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

	(i or population dos omy)
SECTION A. SITE NAME AND LOCATION	
Site Name: Evor Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Road	
Municipality: Old Bridge Township	(Township, Borough or City)
	Zip Code: 08857
Program Interest (PI) Number(s): G000004877	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner Spiral Metals	
2. Well Location (Street Address) 233 Wilshire Blvd, Santa Monica	a, CA, 90401
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _7
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to a	the well casing):
Site Well Number as shown on application or plans):	ISCO-MW-1
Well Completion Date:	November 26, 2013
Distance from Top of Casing (cap off) to ground surface (nearest 0)	.01'):
5. Total Depth of Well to the nearest ½ foot:	31.53
6. Depth to Top of Screen (or top of open hole) from top of casing (ne	earest 0.01'): 26.53
7. Screen Length (or length of open hole) in feet:	5
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material (PVC, steel, or other – specify):	PVC
11. Casing Diameter (inches):	
12. Static Water Level from top of casing at the time of installation (near	arest 0.01'): 20.81
13. Yield (gallons per minute):	
14. Development Techinque (specify):	Submersible
15. Length of Time well is developed/pumped or bailed (hours and min	utes): 1:00



Monitoring Well Certification Form B - Location Certification

SECTION A. SITE NAME AND LOCATION	
Site Name: EVOI Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Avenue	
Municipality: Townships of Old Bridge	(Township, Borough or City)
County: Middlesex	Zip Code: 08857
Program Interest (PI) Number(s):	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well OwnerSpiral Metals	
Well Location (Street Address) 3336 Bordentown Avenue	
Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _ 7
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to the	e well casing): F201317413
Site Well Number (As shown on application or plans): _ISCO-MW-1	y won odding).
Geographic Coordinate NAD 83 to nearest 1/100 of a second:	
	7. L. W. 4. 740.401.00 FF#
	itude: West74° 19' 32.55"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet	units, to nearest foot:
North 584,218 feet Ea	ast _540,638 feet
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest	0.01'); 46.23
Elevation Top of Outer casing: 46.44 Elevation of	of ground: 43.7
Check One: NAVD 88 NGVD 29 On Site Da	atum Other
6. Source of elevation datum (benchmark, number/description and elevassume datum of 100', and give approximated actual elevation (refer	
Elevations are referenced to N.A.V.D. 1988, Horizontal datum is ref Stations NJTP AND NJNT.	erenced to N.J.S.P.C.SN.A.D. 1983 based on NGS Base
7. Significant observations and notes:	
SECTION D. LAND SURVEYOR'S CERTIFICATION	SEAL
l certify under penalty of law that I have personally examined and am fami information submitted in this document and all attachments and that, base	
inquiry of those individuals immediately responsible for obtaining the inform	
believe the submitted information is true, accurate and complete. I am aw	are that there
are significant penalties for submitting false information including the poss and imprisonment.	bility of fine
and imprisonment.	
Professional Land Surveyor's Signature: 4	Date: 02-12-14
Surveyor's Name: Robert E. Vargo Licens	e Number: GS43261
Firm Name: Vargo Associates Certificate A	Authorization #: 24GA28021200
Mailing Address: 2771 Delsea Drive	
City/Town: Franklinville State: NJ	Zip Code: 08322
Phone Number: 856-694-1716 Ext.: 110	Fax: 856-694-3102

New Jersey State Department of Environmental Protection Bureau of Water Allocation and Well Permitting Mail Code 401-03 PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number **E201317414**

MONITORING WELL RECORD

PROPERTY	PROPERTY OWNER: SPIRAL METALS								
Company/Org	ganization: S ₁	piral Metals							
Address: 23	33 Wilshire Bl	vd Santa Monio	ca, California 90	0401					
			asing Company						
			asing Company						
	336 Bordentow		0117.1.5		T	D1 1 c0	15.11		
County: Middlesex Municipality: Old Bridge Twp Lot: 7 Block: 6017.11									
Easting (X):	Easting (X): 540793 Northing (Y): 584315 DATE WELL STARTED: November 27, 2013								
Coordin	Coordinate System: NJ State Plane (NAD83) - USFEET DATE WELL COMPLETED: November 27, 2013								
WELL USE:	MONITOR	ING							
	-				Local ID: ISO	CO-MW-2			
	STRUCTION								
Total Depth	Drilled (ft.):	21	Finished We	ell Depth (ft.):	21	Well Surface: Abov	ve Grade		
Depth to Depth to Diameter Material Wgt/Rating/Screen # Used									
Borehole	Top (ft.) Bottom (ft.) (inches) (lbs/ch no.)								
Casing	0	16	2		PVC	9	ch 40		
Screen	16	21	2		PVC		.010		
Bereen				T	1,0		.010		
	Depth to Top (ft.)	Depth to Bottom (ft.)	Outer Diameter (in.)	Inner Diameter (in)	Bentonite (lbs.)	Material Neat Cement (lbs.)	Water (gal.)		
Grout	0	14	10	2	3	47	4		
Gravel Pack	14	21	10	2		Morie #1			
Grouting Met	hod: Pressur	e method (Trea	nie Pipe)	Dri	lling Method: Holl	low Stem Augers			
ADDITIONAL INFORMATION Protective Casing: Yes Pump Capacity: _ gpm Static Water Level: 20 ft. below land surface Total Design Head: _ ft. Water Level Measure Tool: Tape Drilling Fluid: Well Development Period: 1 hrs. Drill Rig: Geoprobe 7720 Method of Development: Submersible Health and Safety Plan Submitted? Yes									
					•				
ATTACHMENTS:									
GEOLOGIC LOG 0 - 21: Brown SM - Silty sands, sand-silt mixtures									
0 - 21: Brown	SM - Silty sa	nds, sand-silt n	nixtures						
ADDITION	AL INFORMA	ATION:							

Driller of Record:

John Brass,

MONITORING LICENSE # 545089

ENVIRONMENTAL PROBING
INVESTIGATION



MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

	(i or population dos omy)
SECTION A. SITE NAME AND LOCATION	
Site Name: Evor Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Road	
Municipality: Old Bridge Township	(Township, Borough or City)
	Zip Code: 08857
Program Interest (PI) Number(s): G000004877	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner Spiral Metals	
2. Well Location (Street Address) 233 Wilshire Blvd, Santa Monica	a, CA, 90401
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # 7
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to the second	the well casing):
Site Well Number as shown on application or plans):	ISCO-MW-2
Well Completion Date:	November 27, 2013
4. Distance from Top of Casing (cap off) to ground surface (nearest 0	.01'):
5. Total Depth of Well to the nearest ½ foot:	23.42
6. Depth to Top of Screen (or top of open hole) from top of casing (ne	arest 0.01'):
7. Screen Length (or length of open hole) in feet:	
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material (PVC, steel, or other – specify):	PVC
11. Casing Diameter (inches):	
12. Static Water Level from top of casing at the time of installation (near	rest 0.01'): 22.45
13. Yield (gallons per minute):	
14. Development Techinque (specify):	Submersible
15. Length of Time well is developed/pumped or bailed (hours and min	utes): 1:00



Monitoring Well Certification Form B - Location Certification

SECTION A. SITE NAME AND LOCATION	
Site Name: EVOI Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Avenue	
	(Township, Borough or City)
	Zip Code: 08857
Program Interest (PI) Number(s):	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner	
Well Location (Street Address) 3336 Bordentown Avenue	
Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _ 7
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to the	well casing): F201317414
2. Site Well Number (As shown on application or plans): ISCO-MW-2	
Geographic Coordinate NAD 83 to nearest 1/100 of a second:	
	ude: West 74° 19′ 30.51″
New Jersey State Plane Coordinates NAD 83 datum, US survey feet u	2
	A 10.
	t 540,795 feet
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest C	
	ground:
Check One: NAVD 88 NGVD 29 On Site Date	
Source of elevation datum (benchmark, number/description and elevation assume datum of 100', and give approximated actual elevation (reference)	tion/datum). If an on-site datum is used, identify here, ncing NAVD 88).
Elevations are referenced to N.A.V.D. 1988, Horizontal datum is refe Stations NJTP AND NJNT.	renced to N.J.S.P.C.SN.A.D. 1983 based on NGS Base
7. Significant observations and notes:	
SECTION D. LAND SURVEYOR'S CERTIFICATION	SEAL
certify under penalty of law that I have personally examined and am familian Information submitted in this document and all attachments and that, based	
nquiry of those individuals immediately responsible for obtaining the information	ation, I
pelieve the submitted information is true, accurate and complete. I am awa are significant penalties for submitting false information including the possib	
and imprisonment.	, 515
Professional Land Surveyor's Signature: 1. V,	Date: 02-12-14
	Number: GS43261
Firm Name: Vargo Associates Certificate Au	
Mailing Address: 2771 Delsea Drive	
City/Town: Franklinville State: NJ	Zip Code: 08322
Phone Number: 856-694-1716 Ext.: 110	Fax: <u>856-694-3102</u>

New Jersey State Department of Environmental Protection Bureau of Water Allocation and Well Permitting Mail Code 401-03 PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number **E201317415**

MONITORING WELL RECORD

			WONT	JKING WEI	LL KECOKD		
PROPERTY	OWNER: _S	SPIRAL MET	ALS				
Company/Org	ganization: S ₁	piral Metals					
Address: 23	33 Wilshire Bl	vd Santa Monic	ca, California 90	0401			
WELL LOC	ATION: EV	OI Phillips Le	asing Company				
Address: 33	336 Bordentow	n Ave					
-			y: Old Bridge	Гwр	Lot: 7	Block: 60	17.11
			(Y): 584383			CARTED: December 2	
			NAD83) - USFE	750		PLETED: December 2	
	MONITOR		1.1200) 0012	DF	ATE WELL COM	LETED: December 2	14, 2013
					Local ID: ISC	CO-MW-3	
	STRUCTION						
Total Depth	Drilled (ft.):	27	Finished We	ll Depth (ft.):	27	Well Surface: Abov	ve Grade
	Depth to Depth to Diameter Material Wgt/Rating/Screen # Used						
D 1 . 1 .	Top (ft.)	Bottom (ft.)	(inches)			(lbs	s/ch no.)
Borehole							
Casing	0	22	2 2	PVC Sch 40			
Screen	Screen 22 27 2 PVC .010					.010	
	Depth to	Depth to	Outer	Inner	D (1)	Material	
Grout	Top (ft.)	Bottom (ft.)	Diameter (in.)	Diameter (in)	Bentonite (lbs.)	Neat Cement (lbs.) 470	Water (gal.)
Gravel Pack	20	27	10	2	20	Morie 31	32
		e method (Trei	l l		lling Method: Holl		
_	AL INFORMA						
Protective Ca		111011		Pun	np Capacity: _ gpm		
Static Water Level: 26 ft. below land surface Total Design Head: _ ft.							
Water Level Measure Tool: <u>Tape</u> Drilling Fluid:							
Well Development Period: <u>5</u> hrs. Drill Rig: <u>Geoprobe 6620</u>							
Method of Development: <u>Submersible</u> Health and Safety Plan Submitted? <u>Yes</u> Pump Type:							
ATTACHM	ENTS:						
GEOLOGIC							_
		nds, sand-silt n	nixtures some fil	ll material			
	AL INFORMA						
ADDITION	AL HALOMAIA	111011.					

	joseph abell, jr,		ENVIRONMENTAL PROBING
Driller of Record:	MONITORING LICENSE # 0024431	Company:	INVESTIGATION



MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

	(i or population dos omy)
SECTION A. SITE NAME AND LOCATION	
Site Name: Evor Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Road	
Municipality: Old Bridge Township	(Township, Borough or City)
	Zip Code: 08857
Program Interest (PI) Number(s): G000004877	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner Spiral Metals	
2. Well Location (Street Address) 233 Wilshire Blvd, Santa Monica	a, CA, 90401
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # 7
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to a	the well casing):
Site Well Number as shown on application or plans):	ISCO-MW-3
Well Completion Date:	December 24, 2013
4. Distance from Top of Casing (cap off) to ground surface (nearest 0	.01'):
5. Total Depth of Well to the nearest ½ foot:	29.78
6. Depth to Top of Screen (or top of open hole) from top of casing (ne	earest 0.01'): 24.78
7. Screen Length (or length of open hole) in feet:	5
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material (PVC, steel, or other – specify):	PVC
11. Casing Diameter (inches):	
12. Static Water Level from top of casing at the time of installation (near	arest 0.01'): 25.00
13. Yield (gallons per minute):	
14. Development Techinque (specify):	Submersible
15. Length of Time well is developed/pumped or bailed (hours and min	utes): 1:00



Monitoring Well Certification Form B - Location Certification

SECTION A. SITE NAME AND LOCATION	
Site Name: EVOI Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Avenue Municipality: Townships of Old Bridge (Towns	this Dr. such as O'A'
County: Middlesex Zip County:	ship, Borough or City) ide: 08857
	Tracking Number(s):
	Tradking Transportoj.
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner	
Well Location (Street Address) 3336 Bordentown Avenue	
Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _ 7
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to the well ca	asing): E201317415
2. Site Well Number (As shown on application or plans): ISCO-MW-3	
Geographic Coordinate NAD 83 to nearest 1/100 of a second:	
	West 74° 19' 28.99"
New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to	
North _584,387 feet East _540	
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'):	
Elevation Top of Outer casing: 51.50 Elevation of ground	
Check One: NAVD 88 NGVD 29 On Site Datum	
Source of elevation datum (benchmark, number/description and elevation/dat	U Other
assume datum of 100', and give approximated actual elevation (referencing N	NAVD 88).
Elevations are referenced to N.A.V.D. 1988, Horizontal datum is referenced Stations NJTP AND NJNT.	to N.J.S.P.C.SN.A.D. 1983 based on NGS Base
7. Significant observations and notes:	
SECTION D. LAND SURVEYOR'S CERTIFICATION	
I certify under penalty of law that I have personally examined and am familiar with	SEAL
information submitted in this document and all attachments and that, based on my	•
inquiry of those individuals immediately responsible for obtaining the information, I believe the submitted information is true, accurate and complete. I am aware that	thora
are significant penalties for submitting false information including the possibility of t	
and imprisonment.	
Professional Land Surveyor's Signature: ** \(\mathcal{E}_{\mathcal{L}} \mathcal{E}_{\mathcal{L}} \mathcal{V}_{\mathcal{L}} \)	Date: 02-12-14
Surveyor's Name: Robert E. Vargo License Number	
Firm Name: Vargo Associates Certificate Authoriza	ation #: 24GA28021200
Mailing Address: 2771 Delsea Drive	
DI NI I ATTACAMENTATION TO THE STATE OF THE	Zip Code: 08322
Phone Number: 856-694-1716 Ext.: 110 F	Fax: <u>856-694-3102</u>

New Jersey State Department of Environmental Protection Bureau of Water Allocation and Well Permitting Mail Code 401-03 PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number **E201317409**

MONITORING WELL RECORD

			MONT	JKING WE	LL KECOKD		
PROPERTY	OWNER: _U	JNNJRR PEN	N CENTRAL				
Company/Org	ganization: U	NNJRR Penn (Central				
Address: 17	700 Market St	Philadelphia, P	ennsylvania 19	103			
WELL LOC	ATION: EV	OI Phillips Le	asing Company				
Address: Bo	ordentown Ave	e					
County: Mic	ddlesex	_ Municipality	y: Old Bridge	Гwр	Lot: 6	Block: 60)17.11
Easting (X):	540912	Northing	(Y): 584316		DATE WELL ST	CARTED: December	23, 2013
Coordii	nate System: N	IJ State Plane (NAD83) - USFI	EET DA	ATE WELL COMI	PLETED: December	23, 2013
WELL USE:	MONITOR	ING					
Other Use(s)	:				Local ID: ISC	CO-MW-4	
WELL CON	STRUCTION	1					
Total Depth	Drilled (ft.):	20	Finished We	ll Depth (ft.):	20	Well Surface: Flus	sh Mount
	Depth toDepth toDiameterMaterialWgt/Rating/Screen # UsedTop (ft.)Bottom (ft.)(inches)(lbs/ch no.)						
Borehole	0	20	10				
Casing	0	15	2	PVC Sch 40			
Screen	15	20	20 PVC .010				
	Depth to	Depth to	Outer	Inner		Material	
_	Top (ft.)	Bottom (ft.)	` '	Diameter (in)	Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)
Grout Gravel Pack	0 13	13 20	10 10	2 2	15	282 Morie #1	24
	ı	l		ı	lling Mathada Hall		
_		e method (Trei	ille Pipe)	Dn	lling Method: Holl	ow Stem Augers	
ADDITIONAL INFORMATION Protective Casing: No Pump Capacity: _ gpm Static Water Level: 18 ft. below land surface Total Design Head: _ ft. Water Level Measure Tool: Tape Drilling Fluid: Well Development Period: _5 hrs. Drill Rig: Geoprobe 6620							
Method of Development: <u>Submersible</u> Health and Safety Plan Submitted? <u>Yes</u>							
Pump Type:							
ATTACHM							
GEOLOGIC		1 1 11.					
0 - 20: Brown	1 SM - Silty sa	nas, sand-silt n	nixtures some fil	ıı material			
ADDITION	AL INFORMA	ATION:	_	_			

joseph abell, jr, Driller of Record: MONITORING LICENSE # 0024421 Company: INVESTIGATION				
Driller of Decords MONITODING LICENSE # 0024421 Company INVESTIGATION		3 1 /3 /		
Diffici of Record. MONTORING LICENSE # 0024451 Company. INVESTIGATION	Driller of Record:	MONITORING LICENSE # 0024431	Company:	INVESTIGATION



MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

	(i or population dos omy)
SECTION A. SITE NAME AND LOCATION	
Site Name: Evor Phillips Leasing Company	
List all AKAs: Street Address: 3336 Bordentown Road	
Olioti Addioss.	
Municipality: Old Bridge Township	(Township, Borough or City)
	Zip Code: 08857
Program Interest (PI) Number(s): G000004877	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner UNNJRR Penn Central	
2. Well Location (Street Address) 1700 Msrket St, Philadelphia, P.	A, 19103
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # 6
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to a	the well casing): E201317409
Site Well Number as shown on application or plans):	ISCO-MW-4
Well Completion Date:	December 23, 2013
4. Distance from Top of Casing (cap off) to ground surface (nearest 0	.01'):
5. Total Depth of Well to the nearest ½ foot:	19.27
6. Depth to Top of Screen (or top of open hole) from top of casing (ne	arest 0.01'): 14.27
7. Screen Length (or length of open hole) in feet:	
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material (PVC, steel, or other – specify):	PVC
11. Casing Diameter (inches):	
12. Static Water Level from top of casing at the time of installation (near	arest 0.01'): 19.83
13. Yield (gallons per minute):	
14. Development Techinque (specify):	Submersible
15. Length of Time well is developed/pumped or bailed (hours and min	utes): 1:00



Monitoring Well Certification Form B - Location Certification

SECTION A. SITE NAME AND LOCATION	
Site Name: EVOI Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Avenue	
Municipality: Townships of Old Bridge (Township, Bo	·
County: Middlesex Zip Code: 08	
Program Interest (PI) Number(s): Case Tracking	Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner	
Well Location (Street Address) 3336 Bordentown Avenue	
Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _ 6
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to the well casing):	E201317409
2. Site Well Number (As shown on application or plans): ISCO-MW-4	
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:	
Latitude: North 40° 26' 14.97" Longitude: West	74° 19' 28.92"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to neares	
North 584,326 feet East 540,918 fe	
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 44.6	
Elevation Top of Outer casing 45.37 Elevation of ground: 45.	
	Other
6. Source of elevation datum (benchmark, number/description and elevation/datum). If	
assume datum of 100', and give approximated actual elevation (referencing NAVD 8	
Elevations are referenced to N.A.V.D. 1988, Horizontal datum is referenced to N.J. Stations NJTP AND NJNT.	S.P.C.SN.A.D. 1983 based on NGS Base
7. Significant observations and notes:	
SECTION D. LAND SURVEYOR'S CERTIFICATION	
I certify under penalty of law that I have personally examined and am familiar with the	SEAL
information submitted in this document and all attachments and that, based on my	
inquiry of those individuals immediately responsible for obtaining the information, I	
believe the submitted information is true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine	
and imprisonment.	
Professional Land Surveyor's Signature:	D-1 00 10 11
	Date: 02-12-14 S43261
Firm Name: Vargo Associates Certificate Authorization #:	24GA28021200
Mailing Address: 2771 Delsea Drive	
City/Town: Franklinville State: NJ Zip Cod	e: 08322
Phone Number: 856-694-1716 Ext.: 110 Fax: 8	356-694-3102

New Jersey State Department of Environmental Protection Bureau of Water Allocation and Well Permitting Mail Code 401-03 PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number **E201317416**

MONITORING WELL RECORD

				SKING WEI	EL RECORD			
PROPERTY	OWNER: S	SPIRAL MET	ALS					
Company/Org	ganization: S ₁	oiral Metals						
Address: 23	33 Wilshire Bly	d Santa Monic	ca, California 90	0401				
WELL LOC	ATION: EV	OI Phillips Lea	asing Company					
Address: 33	336 Bordentow	n Ave						
County: Mic	ddlesex	_ Municipality	y: Old Bridge	Гwр	Lot: 7	Block: _60	017.11	
Easting (X):	540700	Northing	(Y): 584247		DATE WELL ST	ARTED: November	26, 2013	
			NAD83) - USFE		ATE WELL COME	PLETED: November	26, 2013	
WELL USE:	MONITOR	ING						
Other Use(s)	:				Local ID: ISC	CO-MW-5		
WELL CON	STRUCTION	Ī						
Total Depth	Drilled (ft.):	30	Finished We	ll Depth (ft.):	30	Well Surface: Abo	ve Grade	
	Depth to Depth to Diameter Material Wgt/Rating/Screen # Used							
Borehole	Top (ft.)	Bottom (ft.)	(inches)			(lb	s/ch no.)	
Casing	0	25	2	10 PVC Sch 40				
Screen	25	30	2	PVC .010				
Screen					1 10		.010	
	Depth to	Depth to	Outer	Inner	D (11)	Material	W. ((1)	
Grout	Top (ft.)	Bottom (ft.)	Diameter (in.)	Diameter (in)	Bentonite (lbs.)	Neat Cement (lbs.) 47	Water (gal.)	
Gravel Pack	23	30	10	2	3	Morie #1	4	
		e method (Trer		ı	lling Method: Holl			
ADDITION	AL INFORMA	ATION						
Protective Ca				Pur	np Capacity: _ gpm			
Static Water Level: 20 ft. below land surface Total Design Head: _ ft.								
Water Level Measure Tool: <u>Tape</u> Drilling Fluid:								
Well Development Period: 1 hrs. Drill Rig: Geoprobe 7720								
Method of Development: Submersible Health and Safety Plan Submitted? Yes								
Pump Type: ATTACHM	ENTS.							
0 - 30: Brown		nds, sand-silt n	nixtures					
	•	•						
ADDITIONA	AL INFORMA	ATION:						

	John Brass,		ENVIRONMENTAL PROBING
Driller of Record:	MONITORING LICENSE # 545089	Company:	INVESTIGATION



MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

	, , , , , , , , , , , , , , , , , , , ,
SECTION A. SITE NAME AND LOCATION	
Site Name: Evor Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Road	
• • • • • • • • • • • • • • • • • • • •	o, Borough or City)
County: Middlesex Zip Code:	08857
Program Interest (PI) Number(s): G000004877 Case Tra	cking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner Penn Spiral Metals, LLC	
 Well Location (Street Address) 233 Wilshire Blvd, Santa Monica, CA, 904 	01
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _7
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to the well ca	asing): E201317416
Site Well Number as shown on application or plans):	ISCO-MW-5
Well Completion Date:	November 26, 2013
4. Distance from Top of Casing (cap off) to ground surface (nearest 0.01'):	2.71
5. Total Depth of Well to the nearest ½ foot:	32.71
6. Depth to Top of Screen (or top of open hole) from top of casing (nearest 0.01	'): 27.71
7. Screen Length (or length of open hole) in feet:	5
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material (PVC, steel, or other – specify):	PVC
11. Casing Diameter (inches):	2
12. Static Water Level from top of casing at the time of installation (nearest 0.01")): 22.31
13. Yield (gallons per minute):	<u>2</u>
14. Development Techinque (specify):	Submersible
15. Length of Time well is developed/pumped or bailed (hours and minutes):	1:00



Monitoring Well Certification Form B - Location Certification

SECTION A. SITE NAME AND LOCATION						
Site Name: EVOI Phillips Leasing Company						
List all AKAs:						
Street Address: 3336 Bordentown Avenue						
Municipality: Townships of Old Bridge	(Township, Borough or City)					
County: Middlesex	Zip Code: <u>08857</u>					
Program Interest (PI) Number(s):	Case Tracking Number(s):					
SECTION B. WELL OWNER AND LOCATION						
Name of Well Owner Spiral Metals						
2. Well Location (Street Address) 3336 Bordentown Avenue						
3. Well Location (Municipal Block and Lot) Block# 6017.11	1 Lot # _ 7					
SECTION C. WELL LOCATION SPECIFICS						
Well Permit Number (This number must be permanently affixed to						
2. Site Well Number (As shown on application or plans): <u>ISCO-M</u>	W-5					
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:						
Latitude: North <u>40° 26' 14.23"</u>	Longitude: West74º 19' 31.76"					
4. New Jersey State Plane Coordinates NAD 83 datum, US survey	feet units, to nearest foot:					
North 584,250 feet	East 540,698 feet					
5. Elevation of Top of Inner Casing (cap off) at reference mark (nea						
	tion of ground: 45.1					
	te Datum U Other					
Source of elevation datum (benchmark, number/description and elevation/datum). If an on-site datum is used, identify here, assume datum of 100', and give approximated actual elevation (referencing NAVD 88).						
Elevations are referenced to N.A.V.D. 1988, Horizontal datum i Stations NJTP AND NJNT.	is referenced to N.J.S.P.C.SN.A.D. 1983 based on NGS Base					
7. Significant observations and notes:						
•						
SECTION D. LAND SURVEYOR'S CERTIFICATION	SEAL					
certify under penalty of law that I have personally examined and am						
information submitted in this document and all attachments and that, I inquiry of those individuals immediately responsible for obtaining the i						
believe the submitted information is true, accurate and complete. I an						
are significant penalties for submitting false information including the	possibility of fine					
and imprisonment.						
Professional Land Surveyor's Signature:	Date: 02-12-14					
•	cense Number: GS43261					
	ate Authorization #: 24GA28021200					
Mailing Address: 2771 Delsea Drive						
City/Town Franklinville State: NJ	Zip Code: 08322					
Phone Number: 856-694-1716 Ext.: 110	Fax: 856-694-3102					

New Jersey State Department of Environmental Protection Bureau of Water Allocation and Well Permitting Mail Code 401-03 PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number **E201317417**

MONITORING WELL RECORD

PROPERTY OWNER: SPIRAL METALS								
Company/Org	ganization: S ₁	oiral Metals						
Address: 23	Address: 233 Wilshire Blvd Santa Monica, California 90401							
	-	•	asing Company					
·	336 Bordentow							
County: Middlesex Municipality: Old Bridge Twp			Гwр	Lot: 7	Block: 60	17.11		
Easting (X): 540787 Northing (Y): 584295					DATE WELL STARTED: November 27, 2013			
Coordi	nate System: N	J State Plane (NAD83) - USFE	EET DA	DATE WELL COMPLETED: November 27, 2013			
WELL USE:	MONITOR	ING					,	
					Local ID: ISC	CO-MW-6		
WELL CON	STRUCTION	I						
Total Depth	Drilled (ft.):	32	Finished We	ll Depth (ft.):	32	Well Surface: Abov	ve Grade	
	Depth to	Depth to	Diameter		Material	Wgt/Rating	g/Screen # Used	
	Top (ft.)	Bottom (ft.)	(inches)				s/ch no.)	
Borehole	0	32	10					
Casing	0	27	2	PVC			Sch 40	
Screen	27	32	2		PVC		.010	
	Depth to	Depth to	Outer	Inner		Material		
Consut	Top (ft.)	Bottom (ft.)	Diameter (in.)	Diameter (in)	Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)	
Grout Gravel Pack	0 25	25 32	10 10	2 2	3	47 Morie #1	4	
		e method (Trer		l.	lling Method: Holl			
•	AL INFORMA		. ,					
Protective Ca		IIION		Pun	np Capacity: _ gpm			
Static Water Level: 20 ft. below land surface Total Design Head: _ ft.								
	Water Level Measure Tool: Tape Drilling Fluid:							
Well Development Period: 1 hrs. Drill Rig: Geoprobe 7720 Method of Development: Submersible Health and Safety Plan Submitted? Yes								
Pump Type:								
ATTACHMENTS:								
GEOLOGIC LOG								
0 - 32: Brown SM - Silty sands, sand-silt mixtures								
ADDITIONAL INFORMATION:								

	John Brass,		ENVIRONMENTAL PROBING
Driller of Record:	MONITORING LICENSE # 545089	Company:	INVESTIGATION



MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

	(i ei Bopai inioni des emy)
SECTION A. SITE NAME AND LOCATION	
Site Name: Evor Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Road	
Municipality: Old Bridge Township	(Township, Borough or City)
County: Middlesex	Zip Code: 08857
Program Interest (PI) Number(s): G000004877	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner Penn Spiral Metals, LLC	
2. Well Location (Street Address) 233 Wilshire Blvd, Santa Monic	a, CA, 90401
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _7
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to	the well casing):
Site Well Number as shown on application or plans):	ISCO-MW-6
Well Completion Date:	November 27, 2013
4. Distance from Top of Casing (cap off) to ground surface (nearest 0	.01'): 2.68
5. Total Depth of Well to the nearest ½ foot:	34.68
6. Depth to Top of Screen (or top of open hole) from top of casing (ne	earest 0.01'): 29.68
7. Screen Length (or length of open hole) in feet:	5
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material (PVC, steel, or other – specify):	PVC
11. Casing Diameter (inches):	
12. Static Water Level from top of casing at the time of installation (near	arest 0.01'): 23.08
13. Yield (gallons per minute):	
14. Development Techinque (specify):	Submersible
15. Length of Time well is developed/pumped or bailed (hours and min	nutes): 1:00



Monitoring Well Certification Form B - Location Certification

Date Stamp
(For Department use only)

SECTION A. SITE NAME AND LOCATION	
Site Name:EVOI Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Avenue	
Municipality:Townships of Old Bridge	(Township, Borough or City)
	Zip Code:08857
Program Interest (PI) Number(s):	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner Spiral Metals	
Well Location (Street Address) 3336 Bordentown Avenue	
Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _ 7
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to the	well casing): E201317417
2. Site Well Number (As shown on application or plans): ISCO-MW-6	0/
Geographic Coordinate NAD 83 to nearest 1/100 of a second:	
- 1	tude: West 74° 19′ 30.64″
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet to	No. at the second secon
	st _540,785 feet
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0	0.01'):48.78
Elevation Top of Outer casing: 49.02 Elevation of	f ground:46.1
Check One: NAVD 88 NGVD 29 On Site Dat	tum Other
6. Source of elevation datum (benchmark, number/description and eleval assume datum of 100', and give approximated actual elevation (reference)	ition/datum). If an on-site datum is used, identify here, encing NAVD 88).
Elevations are referenced to N.A.V.D. 1988, Horizontal datum is refe Stations NJTP AND NJNT.	erenced to N.J.S.P.C.SN.A.D. 1983 based on NGS Base
7. Significant observations and notes:	
SECTION D. LAND SURVEYOR'S CERTIFICATION	SEAL
certify under penalty of law that I have personally examined and am familinformation submitted in this document and all attachments and that, based	
inquiry of those individuals immediately responsible for obtaining the inform	
believe the submitted information is true, accurate and complete. I am awa	re that there
are significant penalties for submitting false information including the possit and imprisonment.	pility of fine
and improcessing the	
Professional Land Surveyor's Signature:	Date: 02-12-14
	Number: GS43261
	uthorization #: 24GA28021200
Mailing Address: 2771 Delsea Drive City/Town: Franklinville State: NJ	Zip Code: 08322
Phone Number: 856-694-1716 Ext.: 110	Fax: 856-694-3102
THORSE INCIDENT.	1 8A. UJU-U34-J IUZ

New Jersey State Department of Environmental Protection Bureau of Water Allocation and Well Permitting Mail Code 401-03 PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number **E201317410**

MONITORING WELL RECORD

			WIONII	JKING WE	LL KECOKD					
PROPERTY	OWNER: _U	UNNJRR PEN	N CENTRAL							
Company/Org	ganization: <u>U</u>	NNJRR Penn (Central							
Address: 17	00 Market St	Philadelphia, P	ennsylvania 19	103						
WELL LOC	ATION: EV	OI Phillips Le	asing Company							
Address: Bo	ordentown Ave	e								
County: Mic	ddlesex	_ Municipality	y: Old Bridge	Гwр	Lot: 6	Block: 60	017.11			
Easting (X):	540856	Northing	(Y): 584327		DATE WELL ST	TARTED: December	23, 2013			
			NAD83) - USFI	750		PLETED: December				
WELL USE:	MONITOR	ING								
					Local ID: ISO	CO-MW-7				
	STRUCTION									
		23	Finished We	ll Donth (ft):	23	Well Surface: Flus	h Mount			
Total Depth		1								
	Depth to Top (ft.)									
Borehole	0	23	10		(105) CII IIO.)					
Casing	0	18	2		PVC	S	Sch 40			
Screen	18	23	2		PVC		.010			
	Depth to	Depth to	Outer	Inner		Material				
Consut	Top (ft.)	Bottom (ft.)	Diameter (in.)	` '		Neat Cement (lbs.)	Water (gal.)			
Grout Gravel Pack	0 16	16 23	10 10	2 2	15	282 Morie 31	24			
		e method (Trei			lling Method: Holl					
_	AL INFORMA		1 /			<u> </u>				
Protective Ca		<u> </u>		Pun	np Capacity: _ gpm					
		pelow land surf	ace		al Design Head: _ ft					
	Measure Tool: oment Period:				Drilling Fluid: Drill Rig: Geoprobe 6620					
	evelopment: <u>Si</u>				alth and Safety Plan					
Pump Type:	1				J					
ATTACHMI	ENTS:									
GEOLOGIC										
0 - 23: Brown	SM - Silty sa	nds, sand-silt n	nixtures some fil	ll material						
ADDITION	AL INFORMA	ATION:								

	joseph abell, jr,		ENVIRONMENTAL PROBING
Driller of Record:	MONITORING LICENSE # 0024431	Company:	INVESTIGATION
· ·			



MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

Date Stamp (For Department use only)

	(i or population and only)
SECTION A. SITE NAME AND LOCATION	
Site Name: Evor Phillips Leasing Company	
List all AKAs: Street Address: 3336 Bordentown Road	
Olioti ridaress.	
• • • • • • • • • • • • • • • • • • • •	ownship, Borough or City)
	Code: 08857
Program Interest (PI) Number(s): G000004877 Ca	se Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner UNNJRR Penn Central	
2. Well Location (Street Address) 1700 Msrket St, Philadelphia, PA, 1	19103
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # 6
SECTION C. WELL LOCATION SPECIFICS	
1. Well Permit Number (This number must be permanently affixed to the	well casing): E201317410
Site Well Number as shown on application or plans):	ISCO-MW-7
Well Completion Date:	December 23, 2013
4. Distance from Top of Casing (cap off) to ground surface (nearest 0.01)	'):
5. Total Depth of Well to the nearest ½ foot:	22.5
6. Depth to Top of Screen (or top of open hole) from top of casing (neare	est 0.01'): 17.5
7. Screen Length (or length of open hole) in feet:	
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material (PVC, steel, or other – specify):	PVC
11. Casing Diameter (inches):	
12. Static Water Level from top of casing at the time of installation (neares	et 0.01'): <u>19.70</u>
13. Yield (gallons per minute):	<u>2</u>
14. Development Techinque (specify):	Submersible
15. Length of Time well is developed/pumped or bailed (hours and minute	s): 1:00



Monitoring Well Certification Form B - Location Certification

Date Stamp (For Department use only)

SECTION A. SITE NAME AND LOCATION	
Site Name: EVOI Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Avenue	
	Township, Borough or City)
	Zip Code:08857
Program Interest (PI) Number(s):	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner Spiral Metals	
Well Location (Street Address) 3336 Bordentown Avenue	
Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _ 6
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to the value).	well casing): F201317410
Site Well Number (As shown on application or plans): ISCO-MW-7	
Geographic Coordinate NAD 83 to nearest 1/100 of a second:	
	ude: West 74° 19' 29.53"
New Jersey State Plane Coordinates NAD 83 datum, US survey feet u	
	540,871 feet
5. Elevation of Top of Outer engine 46.93	
	ground:46.8
Check One: NAVD 88 NGVD 29 On Site Datu	ım 📙 Other
Source of elevation datum (benchmark, number/description and elevation assume datum of 100', and give approximated actual elevation (reference)	
Elevations are referenced to N.A.V.D. 1988, Horizontal datum is refer Stations NJTP AND NJNT.	enced to N.J.S.P.C.SN.A.D. 1983 based on NGS Base
7. Significant observations and notes:	
SECTION D. LAND SURVEYOR'S CERTIFICATION	SEAL
certify under penalty of law that I have personally examined and am familia nformation submitted in this document and all attachments and that, based	
nquiry of those individuals immediately responsible for obtaining the informa	ation, I
pelieve the submitted information is true, accurate and complete. I am awar	
are significant penalties for submitting false information including the possibi and imprisonment.	lity of fine
Professional Land Surveyor's Signature:	Date: 02-12-14
Surveyor's Name: Robert E. Vargo License	Number: GS43261
Firm Name: Vargo Associates Certificate Au	thorization #: 24GA28021200
Mailing Address: 2771 Delsea Drive	
City/Town: Franklinville State: NJ	Zip Code: 08322
Phone Number: 856-694-1716 Ext.: 110	Fax: 856-694-3102

New Jersey State Department of Environmental Protection Bureau of Water Allocation and Well Permitting Mail Code 401-03 PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number **E201317418**

MONITORING WELL RECORD

			MONT	OKING WE	LL RECORD				
PROPERTY	OWNER: _S	SPIRAL MET	ALS						
Company/Org	ganization: S ₁	piral Metals							
Address: 23	3 Wilshire Bl	vd Santa Monic	ca, California 90	0401					
WELL LOC	ATION: EV	OI Phillips Le	asing Company						
	36 Bordentow		using company						
			v: Old Bridge	Γwn	Lot: 7	Block: 60	17 11		
			(Y): <u>584359</u>		DATE WELL ST	TARTED: November	27, 2013		
Coordin	nate System: N	IJ State Plane (NAD83) - USFI	EET DA	ATE WELL COM	PLETED: November	27, 2013		
WELL USE:	MONITOR	ING							
Other Use(s)	:				Local ID: ISC	CO-MW-8			
WELL CON	STRUCTION	1							
Total Depth	Drilled (ft.):	24	Finished We	ll Depth (ft.):	24	Well Surface: Abov	ve Grade		
ĺ	Depth to	Depth to	Diameter		Material	Wgt/Rating	g/Screen # Used		
Top (ft.) Bottom (ft.) (inches) (lbs/ch no.)									
Borehole	0	24	10						
Casing									
Screen	19	24	2		PVC		.010		
	Depth to	Depth to	Outer	Inner		Material			
	Top (ft.)	Bottom (ft.)	Diameter (in.)	` ,	` /	Neat Cement (lbs.)	Water (gal.)		
Grout Gravel Pack	0 17	17 24	10 10	2 2	3	47 Morie #1	4		
					III Madhad. II.al				
_		e method (Trei	nie Pipe)	Dn	lling Method: Hol	low Stem Augers			
	AL INFORMA	<u>ATION</u>		Door	nn Consoitre onn				
Protective Car Static Water I		elow land surf	ace		np Capacity: _ gpm al Design Head: _ f				
	Measure Tool:				lling Fluid:	••			
Well Develop	ment Period:	<u>1</u> hrs.		Dri	ll Rig: Geoprobe 77				
	evelopment: <u>St</u>	<u>ıbmersible</u>		Hea	alth and Safety Plan	Submitted? <u>Yes</u>			
Pump Type:									
ATTACHMI									
GEOLOGIC		nds, sand-silt n	-:						
	•		nxtures						
ADDITIONA	AL INFORMA	ATION:							

John Brass,
Driller of Record: MONITORING LICENSE # 545089

ENVIRONMENTAL PROBING INVESTIGATION



MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

Date Stamp (For Department use only)

	(i ei Bopai inioni des emy)
SECTION A. SITE NAME AND LOCATION	
Site Name: Evor Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Road	
Municipality: Old Bridge Township	(Township, Borough or City)
County: Middlesex	Zip Code: 08857
Program Interest (PI) Number(s): G000004877	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner Penn Spiral Metals, LLC	
Well Location (Street Address) 233 Wilshire Blvd, Santa Monica	a, CA, 90401
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _6
SECTION C. WELL LOCATION SPECIFICS	
1. Well Permit Number (This number must be permanently affixed to	the well casing):
Site Well Number as shown on application or plans):	ISCO-MW-8
Well Completion Date:	November 27, 2013
4. Distance from Top of Casing (cap off) to ground surface (nearest 0	.01'): 2.09
5. Total Depth of Well to the nearest ½ foot:	26.09
6. Depth to Top of Screen (or top of open hole) from top of casing (ne	earest 0.01'): 21.09
7. Screen Length (or length of open hole) in feet:	5
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material (PVC, steel, or other – specify):	PVC
11. Casing Diameter (inches):	
12. Static Water Level from top of casing at the time of installation (near	arest 0.01'): 22.90
13. Yield (gallons per minute):	
14. Development Techinque (specify):	Submersible
15. Length of Time well is developed/pumped or bailed (hours and min	nutes): 1:00



Monitoring Well Certification Form B - Location Certification

Date Stamp (For Department use only)

SECTION A. SITE NAME AND LOCATION	
Site Name: EVOI Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Avenue	
Municipality: Townships of Old Bridge (Tow	nship, Borough or City)
County: Middlesex Zip C	code: 08857
Program Interest (PI) Number(s): Case	Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
1. Name of Well Owner Spiral Metals	
Well Location (Street Address) 3336 Bordentown Avenue	
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _ 7
SECTION C. WELL LOCATION SPECIFICS	
1. Well Permit Number (This number must be permanently affixed to the well	casing): E201317418
2. Site Well Number (As shown on application or plans): ISCO-MW-8	
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second:	M4 740 401 00 40#
	West _ 74° 19' 29.42"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units,	to nearest foot:
North 584,360 feet East 5	40,879 feet
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01')	50.19
Elevation Top of Outer casing: 50.43 Elevation of grou	nd: 48.1
Check One: NAVD 88 NGVD 29 On Site Datum	Other
6. Source of elevation datum (benchmark, number/description and elevation/o assume datum of 100', and give approximated actual elevation (referencing	latum). If an on-site datum is used, identify here, NAVD 88).
Elevations are referenced to N.A.V.D. 1988, Horizontal datum is reference Stations NJTP AND NJNT.	ed to N.J.S.P.C.SN.A.D. 1983 based on NGS Base
7. Significant observations and notes:	
SECTION D. LAND SURVEYOR'S CERTIFICATION	SEAL
certify under penalty of law that I have personally examined and am familiar wit	
information submitted in this document and all attachments and that, based on minquiry of those individuals immediately responsible for obtaining the information	
believe the submitted information is true, accurate and complete. I am aware the	at there
are significant penalties for submitting false information including the possibility o	of fine
and imprisonment.	
Professional Land Surveyor's Signature:	Date: 02-12-14
Surveyor's Name: Robert E. Vargo License Num	
Firm Name: Vargo Associates Certificate Authori	zation #: 24GA28021200
Mailing Address: 2771 Delsea Drive	7
City/Town: Franklinville State: NJ	Zip Code: 08322
Phone Number: 856-694-1716 Ext.: 110	Fax: _856-694-3102

New Jersey State Department of Environmental Protection Bureau of Water Allocation and Well Permitting Mail Code 401-03 PO BOX 420 Trenton, NJ 08625-0420 Tel: 609-984-6831

Well Permit Number **E201317411**

MONITORING WELL RECORD

			MONIT	JKING WEI	LL RECORD			
PROPERTY	OWNER: U	JNNJRR PEN	N CENTRAL					
Company/Org	ganization: <u>U</u>	NNJRR Penn (Central					
Address: 17	00 Market St	Philadelphia, P	ennsylvania 19	103				
WELL LOC	ATION: EV	OI Phillips Lea	asing Company					
Address: Bo	ordentown Ave	e						
County: Mic	ddlesex	Municipality	y: Old Bridge	Гwр	Lot: 6	Block: 60	17.11	
Easting (X):	541019	Northing	(Y): 584420		DATE WELL ST	CARTED: December 2	23, 2013	
			NAD83) - USFI	EET DA		PLETED: December 2		
WELL USE:	MONITOR	ING					,	
					Local ID: ISC	CO-MW-9		
WELL CON	STRUCTION	J						
	Drilled (ft.):		Finished We	ll Depth (ft.):	25	Well Surface: Flus	h Mount	
Total Depth	· · · 							
Depth to Depth to Diameter Top (ft.) Bottom (ft.) (inches)					Material Wgt/Rating/Screen # Used (lbs/ch no.)			
Borehole						,		
Casing	0	20	2		PVC	S	sch 40	
Screen	20	25	2		PVC		.010	
	Depth to	Depth to	Outer	Inner		Material		
	Top (ft.)	Bottom (ft.)	Diameter (in.)	`	Bentonite (lbs.)	Neat Cement (lbs.)	Water (gal.)	
Grout Gravel Pack	0 18	18 25	10 10	2 2	20	376 Morie #1	32	
		e method (Trer		L.	lling Method: Holl			
_			ille Fipe)	Dili	illing Method. Hon	ow Stelli Augers		
ADDITIONA Protective Ca	AL INFORMA	<u>ATION</u>		Dun	np Capacity: _ gpm			
		elow land surf	ace		al Design Head: _ ft			
	Measure Tool:				lling Fluid:			
	ment Period:				ll Rig: <u>Geoprobe 66</u>			
	evelopment: <u>Sı</u>	<u>ıbmersible</u>		Hea	alth and Safety Plan	Submitted? Yes		
Pump Type:								
<u>ATTACHM</u>	ENTS:							
GEOLOGIC		1 1 11	• ,	11				
0 - 25: Brown	SM - Silty sa	nds, sand-silt n	nixtures some fil	ıı material				
ADDITIONA	AL INFORMA	ATION:						



MONITORING WELL CERTIFICATION FORM A - AS-BUILT CERTIFICATION

Date Stamp (For Department use only)

	(i or population doe only)
SECTION A. SITE NAME AND LOCATION	
Site Name: Evor Phillips Leasing Company	
List all AKAs: Street Address: 3336 Bordentown Road	
Olicot Address.	
Municipality: Old Bridge Township	(Township, Borough or City)
	Zip Code: 08857
Program Interest (PI) Number(s): G000004877	Case Tracking Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner UNNJRR Penn Central	
2. Well Location (Street Address) 1700 Msrket St, Philadelphia, P.	A, 19103
3. Well Location (Municipal Block and Lot) Block# 6017.11	Lot # 6
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to a	the well casing): E201317411
Site Well Number as shown on application or plans):	ISCO-MW/-Q
Well Completion Date:	December 23, 2013
4. Distance from Top of Casing (cap off) to ground surface (nearest 0	.01'):
5. Total Depth of Well to the nearest ½ foot:	24.69
6. Depth to Top of Screen (or top of open hole) from top of casing (ne	earest 0.01'): 19.69
7. Screen Length (or length of open hole) in feet:	5
8. Screen or Slot Size:	0.010
9. Screen or Slot Material:	PVC
10. Casing Material (PVC, steel, or other – specify):	PVC
11. Casing Diameter (inches):	
12. Static Water Level from top of casing at the time of installation (near	arest 0.01'): 20.81
13. Yield (gallons per minute):	
14. Development Techinque (specify):	Submersible
15. Length of Time well is developed/pumped or bailed (hours and min	utes): 1:00



Monitoring Well Certification Form B - Location Certification

Date Stamp (For Department use only)

SECTION A. SITE NAME AND LOCATION	
Site Name: EVOI Phillips Leasing Company	
List all AKAs:	
Street Address: 3336 Bordentown Avenue	
Municipality: Townships of Old Bridge (Township, Bo	rough or City)
County: Middlesex Zip Code: 08	8857
Program Interest (PI) Number(s): Case Tracking	Number(s):
SECTION B. WELL OWNER AND LOCATION	
Name of Well Owner Spiral Metals	
Well Location (Street Address) 3336 Bordentown Avenue	
Well Location (Municipal Block and Lot) Block# 6017.11	Lot # _ 6
SECTION C. WELL LOCATION SPECIFICS	
Well Permit Number (This number must be permanently affixed to the well casing):	E201317411
Site Well Number (As shown on application or plans): ISCO-MW-9	
3. Geographic Coordinate NAD 83 to nearest 1/100 of a second.	
Latitude: North 40° 26′ 15.92" Longitude: West	74° 19' 27.59"
4. New Jersey State Plane Coordinates NAD 83 datum, US survey feet units, to neares	t foot:
North _584,422 feet East _541,020 fe	
5. Elevation of Top of Inner Casing (cap off) at reference mark (nearest 0.01'): 48.79	
Elevation Top of Outer casing: 49.12 Elevation of ground: 49.	1
	Other
Source of elevation datum (benchmark, number/description and elevation/datum). If assume datum of 100', and give approximated actual elevation (referencing NAVD 88).	an on-site datum is used, identify here
Elevations are referenced to N.A.V.D. 1988, Horizontal datum is referenced to N.J.S Stations NJTP AND NJNT.	
7. Significant observations and notes:	
SECTION D. LAND SURVEYOR'S CERTIFICATION	SEAL
I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my	
inquiry of those individuals immediately responsible for obtaining the information. I	
believe the submitted information is true, accurate and complete. I am aware that there	/
are significant penalties for submitting false information including the possibility of fine and imprisonment.	
Professional Land Surveyor's Signature:	Date: 02-12-14
	643261
Firm Name: Vargo Associates Certificate Authorization #:	24GA28021200
Mailing Address: 2771 Delsea Drive City/Town: Franklinville State: NJ Zip Code	00000
Phone Number: 856-694-1716 Ext.: 110 Fax: 8	56-694-3102

PROJECT: ISCO Wells CLIENT: Evor Phillips INSPECTOR: Chris Del Monico DRILLING CONTRACTOR: Environmental Probing Investigations, Inc.											SHEET 1 OF 1 JOB NO. 50288					
RILL RILL URPO	ER:		RACTOR	John l	Brass	ions, Inc.	SAMPLE	CORE		SING	GROI DATU		ELEV.			
RILL	ING	METH		Direct	Monitoring Push, HSA	TYPE DIA.	GM 2"	MC 2.5"	-		DATE				26/2013 26/2013	
KILL		TYPE			robe 7720	DIA.		2.5			DAIL	1 1141		1 1/2	20/2013	
DEPTH	Sample Type	Number	Blows/6" (N Value)	Penetration/ Recovery		RIAL DESCR	IPTION			Graphic Log	USCS Symbol	Stratum Change	Field Testing PID (ppm)	Well	REMARKS	
2 _					Direct Drilled, not samp	oled										
- 4 _												pa				
6 _												Direct Drilled				
8 _																
- 10 _									10.0							
- 12 _					Yellow/white fine SANI), dry.					SW	Sand				
- 14 _		GM- 1	NA (NA)	5.0'/ 4.1'					14.0		SW	Sa				
-	Ш				Yellow/ brown CLAY, d				15.0		CL					
16 _					Light brown CLAY, dry	-						Clay				
18 _		GM- 2	NA (NA)	5.0'/ 5.0'							CL	Ö				
20 _				-	Yellow/orange fine SAN	ND, wet at 20) feet below gr	ade.	19.5							
22 _		GM-	NA	5.01/												
24 _		3	(NA)	5.0'/ 5.0'								pι				
26 _											SW	Sand				
28 _–		GM- 4	NA (NA)	5.0'/ 5.0'												
30 _					End (of Borehole a	t 30.0'		30.0				0			
32 _–					Lita											
34 _																
-	<u> </u>															

PROJE CLIENT NSPEC	Γ:		ISCO Well Evor Phillip Chris Del I	ps	0						SHEE JOB 1)F 1	50:	288
ORILLI ORILLE PURPO	R:	ONT	RACTOR:	Johr	ironmental Probing Investigation n Brass O Monitoring	ns, Inc.	SAMPLE	CORE	CA	SING	DATU	JM	ELEV.		
ORILLI ORILL	NG M			Dire	ect Push, HSA oprobe 7720	TYPE DIA.	GM 2"	MC 2.5"					RTED SHED	11/	/26/2013 /26/2013
DEPTH (ft)	Sample Type		Blows/6" (N Value)	Penetration/ Recovery	MATERI.	AL DESCR	IPTION			Graphic Log	USCS Symbol	Stratum Change	Field Testing PID (ppm)	Well Graphic	REMARKS
2 _	<u> </u>	=	ш С		Direct Drilled, not sample	ed.				01	200	0,0			
4												illed			
6												Direct Drilled			
8 _															
10 _ - 12 _					Yellow/brown SILT, little	fine sand, o	dry.		10.0		ML	Sandy Silt			
- 14 _	G	M- 1	NA (NA)	5.0'/ 4.1'	Yellow/brown fine SAND	, little coars	se ronded grav	el, dry.	13.0		SP				
- 16 _					Yellow/white fine SAND,	trace silt.			15.0		SP	nd Sand			
- 18 _ -	G	M- 2	NA (NA)	5.0'/ 4.1'	Yellow/orange SILT, little Orange/white fine SAND				18.0		ML SP-	San&ilty Sand			
20 _	G	M- 3	NA (NA)	2.5'/	Gray CLAY, trace organi	cs.			20.5		SM	Clay Sa			
22 _ _ 24 _				2.5'	End of	Borehole a	t 22.5'.		22.5		011	S			
_ 26 _															
28 _															
30 _															
32 _															
34															

ROJE CLIENT NSPEC	Т:		ISCO We Evor Phill Chris Del	ips							SHEE JOB N)F 1	502	288
		CONT	RACTOR		onmental Probing Investigation	ns, Inc.					GRO	JND I	ELEV.		
RILLI					Brass Monitoring		SAMPLE	CORE	CAS	SING	DATU				
RILLI					t Push, HSA	TYPE	GM	MC	_		DATE				27/2013 27/2013
RILL		TYPE	:		robe 7720	DIA.	2"	2.5"	_		DATE	LIINI		11/.	21/2013
DEPTH (ft)	Sample Type	Number	Blows/6" (N Value)	Penetration/ Recovery		AL DESCRI	PTION			Graphic Log	USCS Symbol	Stratum Change	Field Testing PID (ppm)	Well Graphic	REMARKS
_					Direct-drilled, not sample	d									
2 _															
4 _												Direct Drilled			
6 _												Direct			
8 _															
10									10.0						
					Yellow/orange SILT, trace	e fine sand.						Silt			
12 _		GM-	NA	5.04							ML	Sandy			
-	Ш	1	(NA)	5.0'/ 4.3'	Yellow/orange fine SAND), some Silt	<u> </u>		13.0			S			
14 _	Ш				· ·										
16 _															
- 18 _	Ш	GM- 2	NA (NA)	5.0'/ 3.9'											
_	Ш										SP- SM	Sand			
20 _	H										JIVI	l >			
22 _	Ш											Silt			
_		GM- 3	NA (NA)	5.0'/ 3.5'											
24 _									25.0						
26 _					Yellow/orange fine SAND), trace silt.					SP				
28 _		GM- 4	NA (NA)	5.0'/ 3.2'	Grat CLAY, trace organic	cs.			27.0		<u> </u>	ł,			
30 _									30.0		СН	Clay			
20					End of	Borehole at	30.0'.								
32 _															
34 _															

ROJE	T:		ISCO We Evor Phill	ips							SHEE)F 1		
NSPE RILL			Chris Del		onmental Probing Investigatio	ns Inc					JOB N		ELEV.	502	188
RILL	ER:			Joe A	Able	,	SAMPLE	CORE	CAC	SING	DATU	IM			
URPO RILL		: METH	HOD:		Monitoring t Push, HSA	TYPE	GM	MC			DATE				23/2013
RILL		TYPE	:		robe 7720	DIA.	2"	2.5"	-		DATE	FINI		12/	23/2013
DEPTH (ft)	Sample Type	Number	Blows/6" (N Value)	Penetration/ Recovery		AL DESCRI	PTION			Graphic Log	USCS Symbol	Stratum Change	Field Testing PID (ppm)	Well Graphic	REMARKS
_					Direct-drilled, not sample	ed.									
2 _															
4 _	-											rilled			
6 _	-											Direct Drilled			
8 _															
-									10.0						
10 _	П				Yellow/white fine SAND,	trace silt, d	ry.		10.0	•••••					
12 _		GM-	NA												
14 _		1	(NA)	5.0'/ 3.0'					•		sw	Sand			
- 16 _	H								16.0						
-		014	NA		Yellow/orange fine to me	edium SAND), some Silt, r	noist.				Sand			
18 _	Ш	GM- 2	NA (NA)	5.0'/ 4.1'							SP- SM	Silty Sa			
20 _	Ш				White/gray CLAY, trace	organica			19.5			S			
_	П				Willie/gray CLAT, trace	organics.									
22 _		GM-	NA	5.01/							СН	Clay			
24 _		3	(NA)	5.0'/ 4.7'					24.0						
					Yellow/white fine to med				25.0		SP	Sand			
26 _					End of	Borehole at	25.0'.								
28 _															
30 _															
32 _															
34 _															
-															

	: TOR:	ISCO We Evor Phil Chris De	lips I Monico							SHEE JOB I	NO.		502	88
RILLIN RILLE		TRACTOR		onmental Probing Investig Brass	ations, Inc.					GRO	JND E	ELEV.		
JRPO				Monitoring		SAMPLE	CORE	CAS	SING	DATL		RTED	44/0	00/0040
	NG MET			t Push, HSA	TYPE DIA.	GM 2"	MC 2.5"	_				SHED		26/2013 26/2013
	<mark>ୟାG TYP</mark> ଞ୍ର	<u>'E:</u>		robe 7720	DIA.		2.5			DAIL	. 1 11414		1 1/2	.0/2013
(#)	Sample Type Number	Blows/6" (N Value)	Penetration/ Recovery	MAT	ERIAL DESCRI	PTION			Graphic Log	USCS Symbol	Stratum Change	Field Testing PID (ppm)	Well Graphic	REMARKS
				Topsoil Yellow fine SAND.									3 8	
2 _	GM-	NA		Tellow Title SAND.										
-	1	(NA)	5.0'/ 3.2'							sw				
4 _													3 3	
-				Yellow/white fine SA	ND. drv.			5.0						
6 _					, , .									
_	GM-	NA (NA)	5.0'/								Sand			
8 _		(IVA)	5.0'								Sa			
- 10 _										0144				
10 _										SW				
_ 12 _														
	GM-	NA (NA)	5.0'/ 3.5'											
14 _			0.0											
_								15.0 15.5		ML				
16 _				Yellow/orange SILT, Light brown CLAY, d		a, moist.				IVIL				
-	GM-	NA	F 01/	3	,						^			
18 _	4	(NA)	5.0'/ 5.0'							СН	Clay			
-								00.0						
20 _				Yellow/orange fine S	AND, trace silt,	moist to wet.	Wet at 25	20.0						
_ 22 _				feet.										
	GM- 5	NA (NA)	5.0'/										88	
_ 24 _		(,	3.1'											
										SW	Sand			
26 _										344	Se			
-	CM	NA												
28 _	GM- 6	(NA)	5.0'/ 3.6'											
=														
30 _				Fn	d of Borehole at	30.0'.		30.0	*****					
-					5. 5. 10.0 01									
32														
34														
57														
										•				

PROJE			ISCO We	ells							SHEE	T 1 C)F 1			
NSPE		R:	Evor Phill Chris Del	ips Monico							JOB N			50)288	
		CONT	RACTOR		onmental Probing Investigation	ons, Inc.					GRO	JND I	ELEV.			
RILLI					Brass Monitoring		SAMPLE	CORE	CAS	SING	DATU					
RILLI				Direc	t Push, HSA	TYPE	GM	MC					RTED		1/26/2013	
RILL		TYPE	:		robe 7720	DIA.	2"	2.5"	-		DATE	FINI	SHED p	111	1/26/2013	
DEPTH (ft)	Sample Type	Number	Blows/6" (N Value)	Penetration/ Recovery		IAL DESCR	IPTION			Graphic Log	USCS Symbol	Stratum Change	Field Testing PID (ppm)	Well Graphic	REM	IARKS
_					Direct drilled, not sampl	ed										
2 _																
4 _												Direct Drilled				
6 _												Direc				
8 _																
10 _					Yellow/berown SILT, litt	le fine Sand	•		10.0							
- 12 _											ML	Silt				
۱۷ _		GM- 1	NA (NA)	5.0'/ 3.0'	Yellow/brown fine SANI) little coars	se rounded ar	avel	12.5							
14 _				3.0	r onom brown time of a va	s, intio ocare	oo roundou gre	avo			sw					
- 16 _					Yellow/brown fine SANI	D, trace silt,	dry.		15.0			Sand				
10 _					4 inch silt lense.						SW	0,				
18 _		GM- 2	NA (NA)	5.0'/ 3.6'					18.0							
_					Light brown/gray SILT,	dry.					ML	Silt				
20 _	H				Dark gray CLAY, dry, st	iff.			20.0	////						
22 _					3 7 7 37											
		GM- 3	NA (NA)	5.0'/ 5.0'							СН	Clay			V	
24 _				0.0							OI I	ᅙ				
26 _		GM-	NA	2.51					26.0 26.5							
=		4	(NA)	2.5'/ 2.5'	Yellow/orange SILT, littl Yellow/orange fine SAN				27.5		SW-	Sand				
28 _						f Borehole a	t 27.5'.				SM					
30 _																
32 _																
34 _																

						RING									O-MW-7
ROJE			ISCO We Evor Phill	ells							SHEE	T 1 C)F 1		
NSPE	сто		Chris Del	Monico							JOB N			502	288
)RILL)RILL		CONT	RACTOR	: Enviro	onmental Probing Investigatio	ns, Inc.					GRO		ELEV.		
URPO					Monitoring		SAMPLE	CORE	CAS	SING	DATE		RTED	10/	23/2013
		METH			t Push, HSA	TYPE DIA.	GM 2"	MC 2.5"	_	 			SHED		23/2013
KILL		TYPE			robe 7720	DIA.		2.3			DATE			12/	23/2013
DEPTH (ft)	Sample Type	Number	Blows/6" (N Value)	Penetration/ Recovery		AL DESCRI	PTION			Graphic Log	USCS Symbol	Stratum Change	Field Testing PID (ppm)	Well Graphic	REMARKS
2 _					Direct drilled, not sample	ed.									
4 _												8			
-												Direct Drilled			
6 -	1											Dire			
8 _															
10 _					White fine SAND, trace:	silt, dry.			10.0	•••••					
12 _	11														
- 14 _	ll	GM- 1	NA (NA)	5.0'/ 4.2'							sw	Sand			
- 16 _	╫			 	Yellow/orange fine to me	edium SANF) some Silt r	noist to	15.5						
- 18 _	$\ $	GM- 2	NA (NA)	5.0'/	wet.		,,					_			
20 _	$\ $, ,	4.8'							SP- SM	Silty Sand			
20 -	Ħ	GM-	NA (NA)	3.0'/								S			
	Ш	J	(IVA)	3.0'	White CLAY, trace organ	nics.			22.5		CH	Clay			
24 _						Borehole at	23.0'.		_						
26 _															
28 _															
30 _															
32 _															
34 _															
-															

Environmental Probing Investigations, Inc. GROUND ELEV.	ROJI LIEN NSPE	IT:		ISCO We Evor Phill Chris Del	ips						SHEE JOB I	NO.		502	288
MATERIAL DESCRIPTION	RILL	ER: OSE:	:		John I	Brass Monitoring			1		DATU	IM		11/2	27/2013
MATERIAL DESCRIPTION Section S									_		DATE	FINIS	SHED	11/2	27/2013
Direct drilled, not sampled. Direct drilled, not sampled. Direct drilled, not sampled. Page 1	DEPTH (ft)	Sample Type	Number	Blows/6" (N Value)			ERIAL DESCRI	PTION		Graphic Log	USCS Symbol	Stratum Change	Field Testing PID (ppm)	Well Graphic	REMARKS
18 - CM NA S.07 Yellow/orange fine SAND, some Silt, moist to wet. SW SW NA S.07 SM NA S.07 SM NA S.07 SM NA SM	2 .					Direct drilled, not sam	npled.								
18 - CM NA S.07 Yellow/orange fine SAND, some Silt, moist to wet. SW SW NA S.07 SM NA S.07 SM NA S.07 SM NA SM	4 _											Drilled			
18 - CM NA S.07 Yellow/orange fine SAND, some Silt, moist to wet. SW SW NA S.07 SM NA S.07 SM NA S.07 SM NA SM	6 _											Direct			
18 - CM NA S.07 Yellow/orange fine SAND, some Silt, moist to wet. SW SW NA S.07 SM NA S.07 SM NA S.07 SM NA SM	-								10.0						
18	-		GM- 1		5.0 ¹ / 4.5 ¹	Yellow/orange SILT, or yellow/orange fine SA	coarsening dow ND, some Silt.	nward to a	10.0		ML	andy Silt			
18	-					Light yellow fine SAN	D, trace silt.		15.0	• • • • • •		S			
Yellow/orange fine SAND, some Silt, moist to wet. Wet at 20 feet. Wet at 20 feet. SW- SM SM SM SM SM FO CH	18 .		GM- 2		5.0'/ 4.1'						sw	Sand			
24 Gray CLAY, dry. 25.0 CH	20 .	\mathbf{H}				_	AND, some Silt,	, moist to wet	19.0			put			
Gray CLAY, dry. CH G CH G CH G CH G CH G CH G CH CH	22 _										SW- SM	Silty Sa			
28 _ 30	-						of Borehole at	25.0'.			СН	Clay			
30 _	-														
32 _	-														
	32 .														
34 _	34 .														

П	01	BRIE	N & GER	E		ВО	RING	LOG				WE	LL I	NO.	ISC	O-MW-9
PROJE CLIEN INSPE	T:		ISCO Well Evor Phillip Chris Del N	os	00							SHEE	NO.			288
DRILL DRILL PURPO DRILL	ER: OSE	:		Joe ISC	vironmental Probing Able O Monitoring ect Push, HSA	Investigation	s, Inc.	SAMPLE NR	CORE MC		SING	GROU DATU DATE	IM			/23/2013
DRILL					oprobe 7720		DIA.	2"	2.5"			DATE	FINI		12	/23/2013
DEPTH (ft)	Sample Type	Number	Blows/6" (N Value)	Penetration/ Recovery		MATERIA	L DESCRI	PTION			Graphic Log	USCS Symbol	Stratum Change	Field Testing PID (ppm)	Well Graphic	REMARKS
- 2 - 4 - 6 - 8 - 10 - 10 -		NR-	NA (NA)	9.0'/ 0.0'	Macrocore r constructed		et (multiple of former \ fusal at 9.0 Borehole a	well MW-27.	ell	9.0		GC	Direct Drilled			
12							zoronore d									
24																
Notes	:	2" di	ameter PVC	well	screened 20-25' bo	J.										

Sample ID	NJ CLASS IIA	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-1S	MW-4SR	MW-4SR
Sample Date	GROUNDWATER QUALITY	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	6/29/2004	12/20/2004
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)			- J.	<u> </u>	<i></i>		<i></i>	<u> </u>			- J.			- <u>.</u>			<u> </u>	<u> </u>
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromoform	4	4 U	4 U	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U [1 U]	1 U	1 U	4 U	4 U
Bromomethane	10	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U [1 U]	1 U	1 U	1.8 J	2.8
Chlorobenzene	50	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
Chloroethane	-	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
2-Chloroethyl vinyl ether	-	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
Chloroform	70	3.6 J	5 U	2.3 J	5 U	5 U	5 U	1.5	0.7 J	2.6 J	2.7 J	1 U	1 U	0.29 J [0.28 J]	1 U	1 U	5.3	5.9
Chloromethane	-	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
Dibromochloromethane	1	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
1,1-Dichloroethane	50	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
1,2-Dichloroethane	2	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U [1 U]	1 U	1 U	54	49
1,1-Dichloroethene	1	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U [1 U]	1 U	1 U	2 U	2 U
cis-1,2-Dichloroethene	70	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
trans-1,2-Dichloroethene	100	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
trans-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
Ethylbenzene	700	4 U	4 U	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U [1 U]	1 U	1 U	4 U	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	5 U	5 U	0.8 J	1.1 J	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
Methylene chloride	3	3 U	3 U	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U	1 U [1 U]	1 U	1 U	1.2 J	0.8 J
t-Butyl Alcohol (TBA)	100	100 U	100 U	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U [20 U]	20 U	20 U	100 U	100 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	0.8 J	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	38	42
Tetrachloroethene	1	1.1	1 U	1.0	1 U	1 U	1 U	0.8	0.5 J	0.5 J	1 U	1 U	1 U	0.30 J [0.44 J]	1 U	1 U	3.5	4
Toluene	600	5 U	1.3 J	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	0.29 J	1 U [1 U]	1 U	1 U	5 U	0.6 J
1,1,1-Trichloroethane	30	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
1,1,2-Trichloroethane	3	3 U	3 U	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U [1 U]	1 U	1 U	3 U	3 U
Trichloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	5.4	7.2
Trichlorofluoromethane	2000	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
Vinyl chloride	1	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U [1 U]	1 U	1 U	5 U	5 U
Xylene (total)	1000	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U [3 U]	3 U	3 U	5 U	5 U
Total VOCs	-	4.7 J	1.3 J	3.3 J	0.8 J	1.1 J	ND	2.3	1.2 J	3.9 J	2.7 J	ND	0.29 J	0.59 J [0.72 J]	ND	ND	109 J	112 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample I	D NJ CLASS IIA	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-4SR	MW-5I
Sample Da		6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	7/10/2012	12/20/2012	6/29/2004
Un	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	6000	NA NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA.	NA NA	5 U	5 U [5 U]	NA
Benzene	1	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	0.6 J
Bromodichloromethane	1	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	1 U
Bromoform	4	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA [NA]	4 U
Bromomethane	10	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	0.85 J [0.84 J]	NA	NA [NA]	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA NA	5 U	5 U [5 U]	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U [1 U]	NA
Carbon tetrachloride	1	1.1 J	2.0	1.5 J	2.0	0.6	0.9 J	2.1	3.5	2.8	1.9	0.47 J	1.0 [1.1]	1 U [0.84 J]	0.54 J	0.79 J [0.68 J]	2 U
Chlorobenzene	50	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA [NA]	5 U
Chloroethane	-	5 U	5 U	5U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	5 U
2-Chloroethyl vinyl ether	-	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA [NA]	5 U
Chloroform	70	4.2 J	4.6 J	4.9 J	4.8 J	2.7	3.0 J	4.8 J	5.3	5.3	2.6	1.7	3.1 [2.9]	3.0 [3.0]	2.2	3 [2.7]	5 U
Chloromethane	-	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA [NA]	5 U
Dibromochloromethane	1	5 U	5 U	5 U	6 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	5 U
1,1-Dichloroethane	50	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	5 U
1,2-Dichloroethane	2	81	69	63	46	95	110	80	32	28	5.2	30	72 [67]	37 [37]	45	130 [120]	1.7 J
1,1-Dichloroethene	1	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	2 U
cis-1,2-Dichloroethene	70	0.7 J	5 U	0.5 J	5 U	1.2	0.6 J	5 U	5 U	1 U	1 U	1.1	0.36 J [0.38 J]	1 U [1 U]	0.49 J	0.35 J [0.37 J]	5 U
trans-1,2-Dichloroethene	100	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	5 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA [NA]	1 U
cis-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA [NA]	5 U
trans-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA [NA]	5 U
Ethylbenzene	700	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	5 U
Methylene chloride	3	3 U	3 U	0.6 J	0.6 J	1.1	3 U	3 U	0.6 J	1 U	0.24 J	1 U	0.61 J [0.93 J]	0.37 J [0.46 J]	1 U	1.1 [0.94 J]	3 U
t-Butyl Alcohol (TBA)	100	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U [20 U]	20 U [20 U]	NA	NA [NA]	100 U
1,1,2,2-Tetrachloroethane	1	38	36	45	64	20	29	42	4.8	28	2.7	9.7	10 [12]	13 [13]	9.1	20 [18]	1 U
Tetrachloroethene	1	2.4	2.9	3.2	4.5	1.7	2.5	3.1	3.1	4.9	1.6	1.0	2.1 [1.9]	0.99 J [1.0]	0.84 J	1.8 [1.5]	1 U
Toluene	600	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	5 U
1,1,1-Trichloroethane	30	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	5 U
1,1,2-Trichloroethane	3	0.6 J	3 U	0.6 J	0.6 J	0.6	0.5 J	0.4 J	3 U	1 U	1 U	0.22 J	1 U [1 U]	0.15 J [0.23 J]	0.27 J	0.32 J [1 U]	3 U
Trichloroethene	1	6.6	4.2	5.6	6.6	6.2	4.7	4.7	4.3	4.6	3.3	4.7	3.2 [3.2]	1 U [1 U]	3.4	3.1 [2.9]	0.5 J
Trichlorofluoromethane	2000	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	3.1 [3.0]	NA	NA [NA]	5 U
Vinyl chloride	1	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U [1 U]	5 U
Xylene (total)	1000	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	3 U [3 U]	3 U [3 U]	3 U	3 U [3 U]	5 U
Total VOCs	-	134.6 J	118.7 J	124.9 J	129.1 J	129.1 J	151.2 J	137.1 J	53.6	73.6 J	17.5 J	49.9 J	92.4 J [89.4 J]	58.5 J [59.4 J]	61.84 J	160.46 J [147.09 J]	2.8 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-5I	MW-6S
Sample Date	GROUNDWATER QUALITY	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	7/10/2012	12/20/2012	6/29/2004
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)																		
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	NA
Benzene	1	1 U	1 U	1 U	1 U	1 U	0.2	1 U	1 U	1 U	1 U	0.22 J	1 U	1 U	0.15 J	0.14 J	0.13 J [0.14 J]	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Bromoform	4	4 U	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA	NA [NA]	4 U
Bromomethane	10	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA [NA]	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U [5 U]	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U [1 U]	NA
Carbon tetrachloride	1	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	2 U
Chlorobenzene	50	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA [NA]	5 U
Chloroethane	-	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
2-Chloroethyl vinyl ether	-	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA [NA]	5 U
Chloroform	70	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	2 J
Chloromethane	-	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA [NA]	5 U
Dibromochloromethane	1	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
1,1-Dichloroethane	50	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
1,2-Dichloroethane	2	2.1	2 U	2 U	0.7 J	0.7 J	2.9	2 U	2 U	2 U	1.3	1.3	1.9	1.3	2.4	1.5	1.7 [1.9]	32
1,1-Dichloroethene	1	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	2 U
cis-1,2-Dichloroethene	70	5 U	5 U	5 U	5 U	5 U	0.6	5 U	5 U	5 U	1 U	1 U	1 U	1 U	0.38 J	1 U	1 U [1 U]	2.2 J
trans-1,2-Dichloroethene	100	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA [NA]	1 U
cis-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA [NA]	5 U
trans-1,3-Dichloropropene	=	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA [NA]	5 U
Ethylbenzene	700	4 U	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
Methylene chloride	3	3 U	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	27
t-Butyl Alcohol (TBA)	100	100 U	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U	20 U	NA	NA [NA]	100 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Tetrachloroethene	1	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Toluene	600	2.7 J	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1.3	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
1,1,1-Trichloroethane	30	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
1,1,2-Trichloroethane	3	3 U	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	3 U
Trichloroethene	1	1 U	1 U	1 U	1 U	1 U	0.4	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	4.4
Trichlorofluoromethane	2000	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA [NA]	5 U
Vinyl chloride	1	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U
Xylene (total)	1000	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U [3 U]	5 U
Total VOCs	-	4.8 J	ND	ND	0.7 J	0.7 J	4.1	ND	ND	ND	1.3	2.8 J	1.9	1.3	2.9 J	1.64 J	1.83 J [2.04 J]	67.6 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-6S	MW-7I
Sample Date	GROUNDWATER QUALITY	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/30/2010	12/16/2010	12/29/2011	7/10/2012	12/20/2012	6/29/2004
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)		87 -	-0/-		-0, -	8, -	-67 -	8, -			6/ -	6/ -		6/ -		0/ -		-6/-
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA
Benzene	1	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	0.14 J	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	0.66 J	1 U	1 U
Bromoform	4	4 U	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA	4 U
Bromomethane	10	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA
Carbon tetrachloride	1	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	2 U
Chlorobenzene	50	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA	5 U
Chloroethane	-	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U
2-Chloroethyl vinyl ether	-	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	NA	1 U	1 U [1 U]	1 U [1 U]	NA	NA	5 U
Chloroform	70	2.1 J	2.4 J	2.0 J	1.8 J	1.8 J	1.3	0.9 J	0.9 J	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1.4	1 U	5 U
Chloromethane	-	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1.2	4.0	1 U [1 U]	1 U [1 U]	NA	NA	5 U
Dibromochloromethane	1	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U
1,1-Dichloroethane	50	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U
1,2-Dichloroethane	2	29	35	32	28	44	24	20	25	2 U	1 U	0.32 J	1.0	1 U [1 U]	1 U [1 U]	1 U	1 U	2 U
1,1-Dichloroethene	1	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	2 U
cis-1,2-Dichloroethene	70	2.2 J	3.5 J	8.9	13	100	18	17	12	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U
trans-1,2-Dichloroethene	100	5 U	5 U	5 U	5 U	0.6 J	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA	1 U
cis-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA	5 U
trans-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	NA	NA	5 U
Ethylbenzene	700	4 U	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	0.29 J	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	NA	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U
Methylene chloride	3	24	18	16	12	16	10	6.2	5.8	3 U	1 U	0.26 J	0.71 J	1 U [1 U]	1 U [1 U]	1 U	1 U	3 U
t-Butyl Alcohol (TBA)	100	100 U	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	NA	20 U	20 U [20 U]	2.7 J [3.3 J]	NA	NA	100 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	0.6 J	1 U	1.1	0.4	0.4 J	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U
Tetrachloroethene	1	1 U	1 U	1 U	1 U	1 U	0.5	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	0.44 J	0.25 J	1 U
Toluene	600	1.8 J	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1.7	1 U	1 U [1 U]	1 U [1 U]	0.7 J	1 U	5 U
1,1,1-Trichloroethane	30	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	0.18 J	1 U	5 U
1,1,2-Trichloroethane	3	3 U	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	3 U
Trichloroethene	1	2.6	4.0	5.4	5.3	20	5.7	6.9	6.0	1 U	1 U	0.26 J	1 U	1 U [1 U]	1 U [1 U]	0.2 J	0.49 J	1 U
Trichlorofluoromethane	2000	5 U	5 U	5 U	1.6 J	5 U	0.5	0.8 J	5 U	5 U	1 U	NA	1 U	1 U [1 U]	1 U [1 U]	NA	NA	5 U
Vinyl chloride	1	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U
Xylene (total)	1000	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	0.74 J	3 U	3 U [3 U]	3 U [3 U]	3 U	3 U	5 U
Total VOCs	-	61.7 J	62.9 J	64.9 J	61.7 J	183.5 J	60.4	52.2 J	49.7 J	ND	ND	4.9 J	5.7 J	ND [ND]	2.7 J [3.3 J]	3.58 J	0.74 J	ND

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-7I	MW-8S	MW-8S	MW-8S
Sample Date		12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	6/29/2004	12/20/2004	6/28/2005
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)																		
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	4 U	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	4 U
Bromomethane	10	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U
Chlorobenzene	50	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Chloroethane	=	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
2-Chloroethyl vinyl ether	-	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Chloroform	70	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Chloromethane	-	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Dibromochloromethane	1	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
1,1-Dichloroethane	50	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	0.9 J	5 U
1,2-Dichloroethane	2	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U
1,1-Dichloroethene	1	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U
cis-1,2-Dichloroethene	70	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Ethylbenzene	700	4 U	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Methylene chloride	3	3 U	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U
t-Butyl Alcohol (TBA)	100	100 U	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U	20 U	100 U	100 U	100 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	1.6 J	5 U	5 U	3.1 J	5 U	0.3 U	0.4 J	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	1.8 J	0.4 J
1,1,1-Trichloroethane	30	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
1,1,2-Trichloroethane	3	3 U	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U
Trichloroethene	1	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2000	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Vinyl chloride	1	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U
Xylene (total)	1000	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	3 U	3 U	5 U	1.5 J	0.9 J
Total VOCs	-	1.6 J	ND	ND	3.1 J	ND	ND	0.4 J	ND	ND	ND	ND	ND	ND	ND	ND	4.2 J	1.3 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-8S	MW-8S	MW-8S	MW-8S	MW-8S	MW-8S	MW-8S	MW-8S	MW-8S	MW-8S	MW-8S	MW-8S	MW-9I	MW-9I	MW-9I	MW-9I	MW-9I
Sample Date		12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006
Unit	CRITERIA (7/22/2010) ug/L		/1				/1					/1						
(VOCs)		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	6000	NA NA	NA	NA	NA	NA	NA	NA	NA	NA NA	NA	NA NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	0.5 J [1 U]	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U
Bromoform	4	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U [1 U]	4 U	4 U [4 U]	4 U [4 U]	4 U	4 U
Bromomethane	10	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U [1 U]	2 U	2 U [2 U]	2 U [2 U]	2 U	2 U
Chlorobenzene	50	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
Chloroethane	-	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
2-Chloroethyl vinyl ether	-	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	NA	NA	NA	NA	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
Chloroform	70	5 U	5 U	5 U	0.2 U	1.2 J	5 U	2.3 J	1 U	0.90 J	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
Chloromethane	-	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
Dibromochloromethane	1	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
1,1-Dichloroethane	50	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
1,2-Dichloroethane	2	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U [1 U]	2.1	0.9 J [0.8 J]	0.7 J [2 U]	2 U	2 U
1,1-Dichloroethene	1	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U [1 U]	2 U	2 U [2 U]	2 U [2 U]	2 U	2 U
cis-1,2-Dichloroethene	70	5 U	5 U	5 U	0.3 U	5 U	5 U	0.3 J	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
trans-1,2-Dichloroethene	100	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
1,2-Dichloropropane	1	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U
cis-1,3-Dichloropropene	-	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
trans-1,3-Dichloropropene	-	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
Ethylbenzene	700	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U [1 U]	4 U	4 U [4 U]	4 U [4 U]	4 U	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	0.6 J	5 U	0.3 U	5 U	5 U	5 U	1 U	NA	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
Methylene chloride	3	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U [1 U]	1.5 J	0.6 J [0.6 J]	3 U [3 U]	3 U	3 U
t-Butyl Alcohol (TBA)	100	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	NA	20 U	20 U	20 U [20 U]	100 U	100 U [100 U]	100 U [100 U]	100 U	100 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U
Tetrachloroethene	1	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U	1 U
Toluene	600	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	0.31 J	1 U	1 U	1 U [1 U]	5 U	2.4 J [2.3 J]	5 U [5 U]	5 U	5 U
1,1,1-Trichloroethane	30	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
1,1,2-Trichloroethane	3	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U [1 U]	3 U	3 U [3 U]	3 U [3 U]	3 U	3 U
Trichloroethene	1	0.6 J	0.4 J	0.6 J	0.4 U	0.5 J	1 U	1 U	1 U	0.43 J	1 U	0.49 J	1 U [1 U]	0.9 J	1 U [1 U]	1 U [1 U]	1 U	1 U
Trichlorofluoromethane	2000	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	NA	NA	NA	NA	0.24 J [0.24 J]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
Vinyl chloride	1	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U [1 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
Xylene (total)	1000	1.1 J	1.7 J	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	0.47 J	3 U [3 U]	5 U	5 U [5 U]	5 U [5 U]	5 U	5 U
Total VOCs	-	1.7 J	2.7 J	0.6 J	ND	1.7 J	ND	2.6 J	ND	1.6 J	ND	0.96 J	0.24 J [0.24 J]	4.5 J	3.9 J [3.7 J]	1.2 J [ND]	ND	ND

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-9I	MW-9I	MW-9I	MW-9I	MW-9I	MW-9I	MW-9I	MW-9I	MW-9I	MW-9I	MW-9I	MW-9I	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S
Sample Date		12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	7/11/2012	12/20/2012	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)				0, -	-6/-			0, -		-6/ -	6/-			-0, -	6/-			-6/-
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA
Benzene	1	1 U	2.5	1 U	1 U	1 U	1 U	0.22 J	1 U	1 U	1 U	0.3 J	0.31 J	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA	NA	4 U	4 U	4 U	4 U	4 U
Bromomethane	10	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA
Carbon tetrachloride	1	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.3 J	0.9 J	2 U	0.9 J	2 U
Chlorobenzene	50	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Chloroethane	-	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
2-Chloroethyl vinyl ether	-	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Chloroform	70	5 U	0.3	5 U	0.3 J	0.3 J	1 U	0.21 J	0.26 J	1 U	1 U	0.17 J	0.15 J	8.5	2.3 J	1.1 J	2.6 J	1.1 J
Chloromethane	-	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	1	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	50	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	2	0.7 J	1.3	0.4 J	0.4 J	2 U	1 U	1 U	1.7	1 U	0.51 J	1.3	0.54 J	3.6	2.0	2 U	2 U	2 U
1,1-Dichloroethene	1	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene	70	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	8.1	2.7 J	1.4 J	4.8 J	2.0 J
trans-1,2-Dichloroethene	100	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	1	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	-	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	700	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	4 U	4 U	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1.1 J	5 U	5 U	5 U
Methylene chloride	3	3 U	0.4 U	3 U	3 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U
t-Butyl Alcohol (TBA)	100	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U	20 U	NA	NA	100 U	100 U	100 U	100 U	100 U
1,1,2,2-Tetrachloroethane	1	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.7 J	1 U	1 U	1 U
Tetrachloroethene	1	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	5 U	0.3 U	5 U	5 U	5 U	1 U	1.0	1 U	1 U	1 U	1 U	1 U	5 U	0.5 J	5 U	5 U	5 U
1,1,1-Trichloroethane	30	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	3	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U
Trichloroethene	1	1 U	1.2	1 U	1 U	1 U	1 U	1 U	1.4	1 U	1 U	0.51 J	1 U	3.3	1.0	1 U	1.1	0.8 J
Trichlorofluoromethane	2000	5 U	0.4 U	5 U	5 U	5 U	1 U	0.43 J	1 U	1 U	0.27 J	NA	NA	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	1	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	0.22 J	1 U	1 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	1000	5 U	0.4 U	5 U	5 U	5 U	3 U	0.46 J	3 U	3 U	3 U	3 U	3 U	5 U	5 U	5 U	5 U	5 U
Total VOCs	-	0.7 J	5.3	0.4 J	0.7 J	0.6 J	ND	2.3 J	3.4 J	ND	1.0 J	2.28 J	1.0 J	25.4 J	11.2 J	2.5 J	9.4 J	3.9 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-10S	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I
Sample Date		12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/30/2010	12/16/2010	12/29/2011	7/11/2012	12/20/2012	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)		- J.	<u>, , , , , , , , , , , , , , , , , , , </u>	- J.		- J.	- <u>U</u>	<i></i>	<u> </u>	<u> </u>	<u> </u>	- J.	- J.	<u> </u>				- 0.
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA
Benzene	1	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.17 J	0.088 J	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA	NA	4 U	4 U	4 U	4 U	4 U
Bromomethane	10	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA
Carbon tetrachloride	1	2 U	0.3 U	2.8	2 U	0.7 J	1 U	1 U	1 U	0.84 J	1 U	1 U	0.29 J	2 U	2 U	2 U	2 U	2 U
Chlorobenzene	50	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Chloroethane	-	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
2-Chloroethyl vinyl ether	-	5 U	0.2 U	5 U	5 U	5 U	1 U	NA	1 U	NA	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Chloroform	70	5 U	1.3	6.0	5 U	4.2 J	1 U	0.51 J	0.26 J	3.9	0.29 J	1.4	1.2	5 U	5 U	5 U	5 U	5 U
Chloromethane	-	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	1	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.31 J	1 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	50	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	2	2 U	0.3 U	1.3 J	2 U	2.3	0.9 J	16	2.9	6.2	13	1 U	1.4	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethene	1	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene	70	5 U	2.2	3 J	5 U	2.9 J	1 U	1.4	0.77 J	11	1.9	1 U	1.3	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	1	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	-	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	700	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	4 U	4 U	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	0.3 U	5 U	5 U	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
Methylene chloride	3	3 U	0.4 U	0.3 J	3 U	3 U	1 U	0.56 J	1 U	0.86 J	0.41 J	1 U	1 U	3 U	3 U	3 U	3 U	3 U
t-Butyl Alcohol (TBA)	100	100 U	6.5 U	100 U	100 U	100 U	20 U	NA	20 U	20 U	20 U	NA	NA	100 U	100 U	100 U	100 U	100 U
1,1,2,2-Tetrachloroethane	1	1 U	0.4 U	1.8	1 U	1 U	1 U	1 U	1 U	0.25 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1	1 U	0.4 U	0.6 J	1 U	1 U	1 U	0.22 J	1 U	0.39 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	0.8 J	5 U	5 U	5 U
1,1,1-Trichloroethane	30	5 U	0.4 U	5 U	5 U	0.4 J	1 U	0.32 J	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	3	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U
Trichloroethene	1	1 U	1.2	2.5	1 U	3.9	0.48 J	5.4	3.4	9.8	1 U	0.12 J	1.8	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2000	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	6.5	NA	NA	5 U	5 U	5 U	5 U	1.4 J
Vinyl chloride	1	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	1000	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	5 U	5 U	5 U	5 U	5 U
Total VOCs	-	ND	4.7	18.3 J	ND	14.4 J	1.4 J	24.4 J	7.3 J	33.2 J	22.1 J	2.6 J	6.08 J	ND	0.8 J	ND	ND	1.4 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

Sample ID	NJ CLASS IIA	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-11I	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S
Sample Date		12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	7/10/2012	12/20/2012	6/29/2004	12/21/2004	6/28/2005	12/21/2005	6/21/2006
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)		- U	<u>, , , , , , , , , , , , , , , , , , , </u>	<i></i>		- J.	- <u>U</u>	<i></i>		<u> </u>	<u> </u>	, J,	- J.	<u> </u>	- <u>U</u>		- J.	
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA
Benzene	1	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.5	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA	NA	4 U	4 U	4 U	4 U	4 U
Bromomethane	10	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA
Carbon tetrachloride	1	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U
Chlorobenzene	50	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Chloroethane	-	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
2-Chloroethyl vinyl ether	-	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Chloroform	70	5 U	0.2 U	5 U	5 U	0.2 J	1 U	0.68 J	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	-	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	1	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	50	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	2	2 U	0.3 U	2 U	2 U	2 U	1 U	0.29 J	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethene	1	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene	70	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	1	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	-	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	700	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	4 U	4 U	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.7 J
Methylene chloride	3	3 U	0.4 U	3 U	3 U	3 U	4.3	1 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U
t-Butyl Alcohol (TBA)	100	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U	20 U	NA	NA	100 U	100 U	100 U	100 U	100 U
1,1,2,2-Tetrachloroethane	1	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	5 U	0.3 U	5 U	5 U	5 U	1 U	0.30 J	1 U	1 U	1 U	1 U	1 U	5 U	5 U	0.8 J	5 U	5 U
1,1,1-Trichloroethane	30	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	3	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U
Trichloroethene	1	1 U	0.4 U	1 U	1 U	1 U	0.42 J	2.0	1 U	1 U	1 U	0.22 J	1 U	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2000	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	1	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	1000	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	5 U	5 U	0.7 J	5 U	1.0 J
Total VOCs	-	ND	ND	ND	ND	0.2 J	4.7 J	3.3 J	ND	ND	ND	0.22 J	1.5	ND	ND	1.5 J	ND	1.7 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S	MW-13S	MW-14S	MW-14S	MW-14S	MW-14S	MW-14S	MW-14S	MW-15D
Sample Date	GROUNDWATER QUALITY	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	7/2/2009	12/23/2009	6/30/2010	12/16/2010	12/29/2011	7/6/2007	6/29/2010	12/16/2010	12/29/2011	8/16/2012	12/20/2012	12/20/2004
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)		- J.	<u> </u>				- 0,					<u> </u>	<u> </u>		- J.			<i></i>
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33	5 U	NA
Benzene	1	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	0.23 J	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	0.088 J	1.3
Bromodichloromethane	1	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	NA	NA	4 U
Bromomethane	10	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	NA	NA	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.3 J	5 U	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA
Carbon tetrachloride	1	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5	0.44 J	1 U	0.43 J	0.53 J	0.3 J	2 U
Chlorobenzene	50	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	NA	NA	5 U
Chloroethane	-	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	5 U
2-Chloroethyl vinyl ether	-	5 U	0.2 U	5 U	5 U	5 U	NA	NA	NA	NA	NA	0.2 U	NA	NA	NA	NA	NA	5 U
Chloroform	70	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.6	0.55 J	0.49 J	0.47 J	0.66 J	0.54 J	5 U
Chloromethane	-	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	NA	NA	5 U
Dibromochloromethane	1	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.3 U	1 U	1 U	1 U	1 U	1 U	5 U
1,1-Dichloroethane	50	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.3 U	1 U	1 U	1 U	1 U	1 U	5 U
1,2-Dichloroethane	2	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	0.3 U	1 U	1 U	1 U	0.19 J	1 U	0.6 J
1,1-Dichloroethene	1	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	5.1
cis-1,2-Dichloroethene	70	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.3 U	1 U	1 U	1 U	1 U	1 U	5 U
trans-1,2-Dichloroethene	100	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	5 U
1,2-Dichloropropane	1	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	NA	NA	1 U
cis-1,3-Dichloropropene	-	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.1 U	1 U	1 U	1 U	NA	NA	5 U
trans-1,3-Dichloropropene	-	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	NA	NA	5 U
Ethylbenzene	700	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	4 U
Methyl tert-butyl ether (MTBE)	70	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.3 U	1 U	1 U	1 U	NA	1 U	5 U
Methylene chloride	3	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	3 U
t-Butyl Alcohol (TBA)	100	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U	20 U	6.5 U	20 U	20 U	20 U	NA	NA	100 U
1,1,2,2-Tetrachloroethane	1	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	0.44 J	1 U	1 U
Tetrachloroethene	1	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	0.22 J	1 U
Toluene	600	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.3 U	1 U	1 U	0.19 J	1 U	1 U	2 J
1,1,1-Trichloroethane	30	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	5 U
1,1,2-Trichloroethane	3	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	3 U
Trichloroethene	1	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	0.8 J
Trichlorofluoromethane	2000	5 U	0.4 U	5 U	5 U	5 U	NA	NA	NA	NA	1 U	0.4 U	NA	NA	1 U	NA	NA	5 U
Vinyl chloride	1	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	2.5 J
Xylene (total)	1000	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	3 U	3 U	5 U
Total VOCs	-	ND	ND	ND	ND	ND	ND	ND	0.23 J	ND	ND	1.1	0.99 J	0.49 J	1.09 J	38.12 J	1.15 J	12.3 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-15D	MW-19S	MW-19S
Sample Date	GROUNDWATER QUALITY CRITERIA (7/22/2010) ug/L	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	7/1/2009	12/23/2009	6/30/2010	12/16/2010	12/29/2011	7/11/2012	12/20/2012	6/29/2004	12/20/2004
(VOCs)		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Acetone	6000	NA	l NA	NA	NA I	NA	NA	NA	NA NA	NA.	NA	NA	NA	NA	5 U	5 U	NA	NA NA
Benzene	1	4.3	0.9 J	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.16 J	1 U	0.7 J
Bromodichloromethane	1	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA NA	NA.	4 U	4 U
Bromomethane	10	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA NA	NA.	5 U	5 U
2- Butanone	300	NA NA	NA NA	NA NA	NA NA	NA.	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	5 U	5 U	NA NA	NA NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA
Carbon tetrachloride	1	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U
Chlorobenzene	50	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U
Chloroethane	-	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U
2-Chloroethyl vinyl ether	-	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	NA	NA	NA	5 U	5 U
Chloroform	70	5 U	5 U	5 U	5 U	0.3	0.3 J	0.4 J	0.4 J	0.41 J	0.33 J	0.42 J	0.47 J	0.29 J	0.25 J	0.27 J	5 U	5 U
Chloromethane	-	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U
Dibromochloromethane	1	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U
1,1-Dichloroethane	50	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2.6 J	2.8 J
1,2-Dichloroethane	2	1.1 J	2 U	2 U	0.5 J	0.3	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	0.22 J	2 U	2 U
1,1-Dichloroethene	1	7.6	4.1	3.0	2.2	2.2	1.2 J	1.1 J	1.1 J	1.8	2.2	1.1	1.4	0.88 J	1.4	2.9	2 U	2 U
cis-1,2-Dichloroethene	70	0.9 J	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U
trans-1,2-Dichloroethene	100	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1.7	1 U	1 U	1 U	1 U	1 U	5 U	5 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U
cis-1,3-Dichloropropene	=	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U
trans-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U
Ethylbenzene	700	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1.2 J	1 J
Methyl tert-butyl ether (MTBE)	70	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U
Methylene chloride	3	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U
t-Butyl Alcohol (TBA)	100	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U	20 U	NA	NA	100 U	100 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	5 U	5 U	0.6 J	5 U	0.3 U	5 U	5 U	5 U	1 U	0.41 J	1 U	1 U	1 U	1 U	1 U	5 U	1.9 J
1,1,1-Trichloroethane	30	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U
1,1,2-Trichloroethane	3	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U
Trichloroethene	1	1.6	0.7 J	0.6 J	0.5 J	0.6	1 U	1 U	1 U	0.29 J	0.69 J	0.25 J	1 U	1 U	0.24 J	0.59 J	20	20
Trichlorofluoromethane	2000	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	0.21 J	NA	NA	5 U	5 U
Vinyl chloride	1	7.0	0.5 J	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U
Xylene (total)	1000	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	2.9 J	2.5 J
Total VOCs	-	22.5 J	6.2 J	4.2 J	3.2 J	3.4	1.5 J	1.5 J	1.5 J	2.5 J	5.3 J	1.77 J	1.87 J	1.38 J	1.89 J	4.14 J	26.7 J	28.9 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-19S	MW-20S	MW-20S
Sample Date	GROUNDWATER QUALITY	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	7/10/2012	12/20/2012	6/28/2005	12/21/2005
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)		- 0,							<u> </u>		- U	<u> </u>	· 0,					3
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA
Benzene	1	1 U	0.5 J	1 U	1 U	0.2 U	1 U	1 U	0.8 J	1 U	1 U	1 U	1 U	0.37 J	0.13 J	0.088 J	1 U	1 U [1 U]
Bromodichloromethane	1	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Bromoform	4	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA	NA	4 U	4 U [4 U]
Bromomethane	10	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U [5 U]
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA
Carbon tetrachloride	1	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U [2 U]
Chlorobenzene	50	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U [5 U]
Chloroethane	-	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	0.99 J	1 U	1 U	0.75 J	5 U	5 U [5 U]
2-Chloroethyl vinyl ether	-	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	NA	NA	NA	5 U	5 U [5 U]
Chloroform	70	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U [5 U]
Chloromethane	-	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U [5 U]
Dibromochloromethane	1	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U [5 U]
1,1-Dichloroethane	50	3.5 J	5 U	2.9 J	1.1 J	2.9	5 U	1.5 J	5 U	1.1	1 U	1.1	0.34 J	0.86 J	0.66 J	1 U	5 U	5 U [5 U]
1,2-Dichloroethane	2	2 U	2 U	2 U	2 U	0.2 U	2 U	2 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U [2 U]
1,1-Dichloroethene	1	2 U	2.6	2 U	2 U	0.5 U	2 U	2 U	2.0	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U [2 U]
cis-1,2-Dichloroethene	70	1.2 J	5 U	39	1.0 J	6.0	31	2.6 J	0.5 J	3.1	0.23 J	2.8	16	2.7	1.6	9	5 U	5 U [5 U]
trans-1,2-Dichloroethene	100	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U [5 U]
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U [1 U]
cis-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U [5 U]
trans-1,3-Dichloropropene	-	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U [5 U]
Ethylbenzene	700	0.4 J	4 U	2.0 J	4 U	0.4 U	0.7 J	0.5 J	4 U	1.0	1 U	0.77 J	2.0	1.6	0.97 J	2.7	4 U	4 U [4 U]
Methyl tert-butyl ether (MTBE)	70	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U [5 U]
Methylene chloride	3	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U [3 U]
t-Butyl Alcohol (TBA)	100	100 U	9.3 J	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U	20 U	20 U	NA	NA	100 U	100 U [100 U]
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Tetrachloroethene	1	0.5 J	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	0.26 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]
Toluene	600	5 U	5 U	0.7 J	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	0.18 J	1 U	1 U	1 U	5 U	5 U [5 U]
1,1,1-Trichloroethane	30	5 U	5 U	5 U	0.7 J	0.4 U	5 U	5 U	1.0 J	1 U	0.85 J	1 U	1 U	1 U	1 U	1 U	5 U	5 U [5 U]
1,1,2-Trichloroethane	3	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U [3 U]
Trichloroethene	1	15	3.3	1 U	4.0	3.3	1.1	3.4	3.8	2.1	1.7	0.94 J	0.73 J	1 U	0.64 J	0.12 J	1 U	1 U [1 U]
Trichlorofluoromethane	2000	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	0.68 J	NA	NA	5 U	5 U [5 U]
Vinyl chloride	1	5 U	0.4 J	5 U	5 U	0.2 U	5 U	5 U	0.8 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U [5 U]
Xylene (total)	1000	0.5 J	5 U	5.5	5 U	0.4	1.6 J	0.8 J	5 U	2.4 J	3 U	2.0 J	6.4	4.0	1.9 J	2.3 J	5 U	5 U [5 U]
Total VOCs	-	21.1 J	16.1 J	50.1 J	6.8	12.6	34.4 J	8.8 J	9.5 J	9.7 J	3 J	7.61 J	26.6 J	10.2 J	5.9 J	14.96 J	ND	ND [ND]

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-20S	MW-20S	MW-20S	MW-20S	MW-20D	MW-20D	MW-20D	MW-20D	MW-20D	MW-20D	MW-20D	MW-20D	MW-20D	MW-20D	MW-20D	MW-20D	MW-20D
Sample Date	GROUNDWATER QUALITY	6/21/2006	12/20/2006	7/6/2007	6/24/2008	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	7/1/2009	12/23/2009	6/30/2010	12/16/2010
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)		- 0,	- J.	- J.	<u> </u>	<i></i>	- 0,	<u> </u>	<u> </u>	<i></i>	<i></i>	<u> </u>		<i></i>		<u>. </u>		
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	1 U	0.2 U	1 U	1 U	1.0	0.8 J	0.8 J	1 U	1.0	0.4 J	0.3 J	1 U [1 U]	1 U	0.35 J	0.32 J	0.26 J
Bromodichloromethane	1	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Bromoform	4	4 U	4 U	0.2 U	4 U	4 U	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U [4 U]	1 U	1 U	1 U	1 U
Bromomethane	10	5 U	5 U	0.4 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	2 U	2 U	0.3 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U [2 U]	1 U	1 U	1 U	1 U
Chlorobenzene	50	5 U	5 U	0.2 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
Chloroethane	-	5 U	5 U	0.4 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
2-Chloroethyl vinyl ether	-	5 U	5 U	0.2 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
Chloroform	70	5 U	5 U	0.2 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
Chloromethane	-	5 U	5 U	0.4 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
Dibromochloromethane	1	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
1,1-Dichloroethane	50	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
1,2-Dichloroethane	2	2 U	2 U	0.3 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3	2 U	2 U	2 U [2 U]	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1	2 U	2 U	0.5 U	2 U	1.3 J	1.4 J	1.9 J	1.5 J	1.8 J	1.7	0.7 J	1.0	0.5 J [0.7 J]	0.85 J	0.25 J	0.82 J	1 U
cis-1,2-Dichloroethene	70	5 U	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	5 U	5 U	0.4 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	5 U	5 U	0.1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	=	5 U	5 U	0.2 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
Ethylbenzene	700	4 U	4 U	0.4 U	4 U	4 U	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U [4 U]	1 U	1 U	1 U	1 U
Methyl tert-butyl ether (MTBE)	70	0.6 J	5 U	0.3 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
Methylene chloride	3	3 U	3 U	0.4 U	3 U	3 U	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U [3 U]	1 U	1 U	1 U	1 U
t-Butyl Alcohol (TBA)	100	100 U	100 U	6.5 U	100 U	100 U	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U [100 U]	20 U	20 U	20 U	20 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Tetrachloroethene	1	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U
Toluene	600	5 U	5 U	0.3 U	5 U	2.5 J	0.7 J	5 U	0.7 J	5 U	0.3 U	5 U	5 U	5 U [5 U]	1 U	1.1	1 U	1 U
1,1,1-Trichloroethane	30	5 U	5 U	0.4 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	3	3 U	3 U	0.2 U	3 U	3 U	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U [3 U]	1 U	1 U	1 U	1 U
Trichloroethene	1	1 U	1 U	0.4 U	1 U	1 U	1 U	0.5 J	1 U	0.5 J	0.4 U	1 U	1 U	1 U [1 U]	0.24 J	1 U	1 U	1 U
Trichlorofluoromethane	2000	5 U	5 U	0.4 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U [5 U]	1 U	1 U	1 U	1 U
Vinyl chloride	1	5 U	5 U	0.2 U	5 U	5 U	1.4 J	1.7 J	1.4 J	5 U	1.7	5 U	0.8 J	5 U [5 U]	1 U	1 U	0.52 J	1 U
Xylene (total)	1000	5 U	5 U	0.4 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U [5 U]	3 U	3 U	3 U	3 U
Total VOCs	-	0.6 J	ND	ND	ND	3.8 J	4.5 J	4.9 J	4.4 J	2.3 J	5.0	1.1 J	2.1	0.5 J [0.7 J]	1.1 J	1.7 J	1.66 J	0.26 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-20D	MW-21S	MW-21S	MW-21S	MW-21S	MW-21S	MW-21S	MW-21S	MW-21S	MW-21S	MW-21S	MW-21S	MW-21S	MW-21S	MW-22D	MW-22D	MW-22D
Sample Date	GROUNDWATER QUALITY	12/29/2011	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	7/1/2009	12/23/2009	12/29/2011	12/20/2004	6/28/2005	12/21/2005
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)		~6/ -			-5/ <u>-</u>			-5/ <u>-</u>	WB/ =	-6/-2	~6/ -	~6/ -	₆ / -		w ₅ / =	u ₅ / =	WB/ =	45/2
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	0.43 J	1 U	1 U	1 U	1 U	1 U	0.6 J	0.2 U	1 U	1 U	1 U	1 U	0.21 J	0.33 J	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	1 U	4 U	4 U	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	4 U	4 U	4 U
Bromomethane	10	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	1 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	2 U	2 U	2 U
Chlorobenzene	50	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
Chloroethane	-	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
2-Chloroethyl vinyl ether	-	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
Chloroform	70	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
Chloromethane	-	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
Dibromochloromethane	1	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
1,1-Dichloroethane	50	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
1,2-Dichloroethane	2	1 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	2 U	2 U	2 U
1,1-Dichloroethene	1	0.89 J	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	2 U	2 U	2 U
cis-1,2-Dichloroethene	70	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	=	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	=	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
Ethylbenzene	700	1 U	4 U	4 U	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	4 U	4 U	4 U
Methyl tert-butyl ether (MTBE)	70	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
Methylene chloride	3	1 U	3 U	3 U	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U	1 U	3 U	3 U	3 U
t-Butyl Alcohol (TBA)	100	20 U	100 U	100 U	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U	20 U	100 U	100 U	100 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	0.3 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	0.13 J	1 U	1 J	5 U	5 U
1,1,1-Trichloroethane	30	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
1,1,2-Trichloroethane	3	1 U	3 U	3 U	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	3 U	3 U	3 U
Trichloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U
Trichlorofluoromethane	2000	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
Vinyl chloride	1	0.64 J	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	5 U	5 U	5 U
Xylene (total)	1000	3 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	5 U	5 U	5 U
Total VOCs	-	1.96 J	ND	ND	ND	ND	ND	0.6 J	ND	0.3 J	ND	ND	ND	0.34 J	0.33 J	1 J	0.4 J	ND

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-22D	MW-22D	MW-22D	MW-22D	MW-22D	MW-22D	MW-22D	MW-22D	MW-22D	MW-22D	MW-22D	MW-22I	MW-22I	MW-22I	MW-22I	MW-22I	MW-22I
Sample Date	GROUNDWATER QUALITY	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	7/1/2009	12/23/2009	6/30/2010	12/16/2010	12/29/2011	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)																		
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	0.7 J	0.2 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	0.22 J [0.27 J]	1 U	0.24 J	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	0.2 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	4 U	4 U	0.2 U	4 U	4 U [4 U]	4 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	4 U	4 U	4 U	4 U	4 U	4 U
Bromomethane	10	5 U	5 U	0.4 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	2 U	2 U	0.3 U	2 U	2 U [2 U]	2 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U
Chlorobenzene	50	5 U	5 U	0.2 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroethane	-	5 U	5 U	0.4 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
2-Chloroethyl vinyl ether	=	5 U	5 U	0.2 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloroform	70	5 U	5 U	0.2	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
Chloromethane	-	5 U	5 U	0.4 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
Dibromochloromethane	1	5 U	5 U	0.3 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1-Dichloroethane	50	5 U	5 U	0.3 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloroethane	2	2 U	2 U	0.3 U	2 U	2 U [2 U]	2 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U
1,1-Dichloroethene	1	2 U	2 U	1.2	2 U	0.6 J [0.5 J]	2 U	1 U [1 U]	1 U [1 U]	0.2 J [1 U]	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U
cis-1,2-Dichloroethene	70	5 U	5 U	0.3 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,2-Dichloroethene	100	5 U	5 U	0.4 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-Dichloropropane	1	1 U	1 U	0.5 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	5 U	5 U	0.1 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
trans-1,3-Dichloropropene	-	5 U	5 U	0.2 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
Ethylbenzene	700	4 U	4 U	0.4 U	4 U	4 U [4 U]	4 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	4 U	4 U	4 U	4 U	4 U	4 U
Methyl tert-butyl ether (MTBE)	70	1.2 J	5 U	0.3 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	0.6 J	5 U
Methylene chloride	3	3 U	3 U	0.4 U	3 U	3 U [3 U]	3 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	1.4 J	3 U	3 U	3 U	3 U	3 U
t-Butyl Alcohol (TBA)	100	100 U	100 U	6.5 U	100 U	100 U [100 U]	100 U	20 U [20 U]	20 U [20 U]	20 U [20 U]	20 U	3.0 J	100 U	100 U	100 U	100 U	100 U	100 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	0.4 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1	1 U	1 U	0.4 U	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	1.4 J	5 U	0.3 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	1.4 J	1.4 J	5 U	5 U	5 U
1,1,1-Trichloroethane	30	5 U	5 U	0.4 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
1,1,2-Trichloroethane	3	3 U	3 U	0.2 U	3 U	3 U [3 U]	3 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	3 U	3 U	3 U	3 U	3 U	3 U
Trichloroethene	1	1 U	1 U	0.5	1 U	1 U [1 U]	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	0.6 J	1 U	1 U	1 U	1 U	1 U
Trichlorofluoromethane	2000	5 U	5 U	0.4 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
Vinyl chloride	1	5 U	5 U	0.2 U	5 U	5 U [5 U]	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U
Xylene (total)	1000	1.2 J	5 U	0.4 U	5 U	5 U [5 U]	5 U	3 U [3 U]	3 U [3 U]	3 U [3 U]	3 U	3 U	5 U	5 U	0.6 J	5 U	5 U	5 U
Total VOCs	-	3.8 J	0.7 J	1.9	ND	0.6 J [0.5 J]	ND	ND [ND]	ND [ND]	0.42 J [0.27 J]	ND	3.24 J	2 J	1.4 J	2 J	ND	0.6 J	ND

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

Sample ID	NJ CLASS IIA	MW-22I	MW-22I	MW-22I	MW-22I	MW-22I	MW-22I	MW-22I	MW-22I	MW-22I	MW-22S	MW-22S	MW-22S	MW-22S	MW-22S	MW-22S	MW-22S	MW-22S
Sample Date	GROUNDWATER QUALITY	7/6/2007	1/22/2008	6/24/2008	12/19/2008	7/1/2009	12/23/2009	6/30/2010	12/16/2010	12/29/2011	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)			-0/-	-6/ -	-0/-	0/ -		-6/ -	6/ -	-6/ -		8, -	0/ -	6/ -	0/	-0, -	6/ -	-87 -
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	0.2 U	1 U	1 U [1 U]	1 U	0.96 J	0.19 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	0.7 J [0.6 J]	0.2 U [0.2 U]	1 U [1 U]
Bromodichloromethane	1	0.2 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	0.2 U [0.2 U]	1 U [1 U]
Bromoform	4	0.2 U	4 U	4 U [4 U]	4 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	4 U	4 U	4 U [4 U]	4 U [4 U]	0.2 U [0.2 U]	4 U [4 U]
Bromomethane	10	0.4 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	0.3 U	2 U	2 U [2 U]	2 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U [2 U]	2 U [2 U]	0.3 U [0.3 U]	2 U [2 U]
Chlorobenzene	50	0.2 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.2 U [0.2 U]	5 U [5 U]
Chloroethane	-	0.4 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]
2-Chloroethyl vinyl ether	-	0.2 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.2 U [0.2 U]	5 U [5 U]
Chloroform	70	0.2 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.2 U [0.2 U]	5 U [0.3 J]
Chloromethane	-	0.4 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]
Dibromochloromethane	1	0.3 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.3 U [0.3 U]	5 U [5 U]
1,1-Dichloroethane	50	0.3 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.3 U [0.3 U]	5 U [5 U]
1,2-Dichloroethane	2	0.3 U	2 U	2 U [2 U]	2 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U [2 U]	2 U [2 U]	0.3 U [0.3 U]	2 U [2 U]
1,1-Dichloroethene	1	0.5 U	2 U	2 U [2 U]	2 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	0.7 J [2 U]	2 U [2 U]	0.5 U [0.5 U]	2 U [1.2 J]
cis-1,2-Dichloroethene	70	0.3 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.3 U [0.3 U]	5 U [5 U]
trans-1,2-Dichloroethene	100	0.4 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]
1,2-Dichloropropane	1	0.5 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	0.5 U [0.5 U]	1 U [1 U]
cis-1,3-Dichloropropene	-	0.1 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.1 U [0.1 U]	5 U [5 U]
trans-1,3-Dichloropropene	-	0.2 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.2 U [0.2 U]	5 U [5 U]
Ethylbenzene	700	0.4 U	4 U	4 U [4 U]	4 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	4 U	4 U	4 U [4 U]	4 U [4 U]	0.4 U [0.4 U]	4 U [4 U]
Methyl tert-butyl ether (MTBE)	70	0.3 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	0.8 J	2.0 J	0.8 J	5 U [0.6 J]	5 U [5 U]	0.3 U [0.3 U]	5 U [5 U]
Methylene chloride	3	0.4 U	3 U	3 U [3 U]	3 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U [3 U]	3 U [3 U]	0.4 U [0.4 U]	3 U [0.3 J]
t-Butyl Alcohol (TBA)	100	6.5 U	100 U	100 U [100 U]	100 U	20 U	20 U	20 U	20 U	10 J	100 U	100 U	100 U	100 U	100 U [100 U]	100 U [100 U]	6.5 U [6.5 U]	100 U [100 U]
1,1,2,2-Tetrachloroethane	1	0.4 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	0.4 U [0.4 U]	1 U [1 U]
Tetrachloroethene	1	0.4 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	0.4 U [0.4 U]	1 U [1 U]
Toluene	600	0.3 U	5 U	5 U [5 U]	5 U	1 U	1.2	1 U	1 U	1 U	5 U	0.7 J	5 U	5 U	0.8 J [5 U]	5 U [5 U]	0.3 U [0.3 U]	5 U [5 U]
1,1,1-Trichloroethane	30	0.4 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]
1,1,2-Trichloroethane	3	0.2 U	3 U	3 U [3 U]	3 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U [3 U]	3 U [3 U]	0.2 U [0.2 U]	3 U [3 U]
Trichloroethene	1	0.4 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	0.4 U [0.4 U]	1 U [1 U]
Trichlorofluoromethane	2000	0.4 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]
Vinyl chloride	1	0.2 U	5 U	5 U [5 U]	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.2 U [0.2 U]	5 U [5 U]
Xylene (total)	1000	0.4 U	5 U	5 U [5 U]	5 U	3 U	3 U	3 U	3 U	3 U	5 U	5 U	5 U	5 U	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]
Total VOCs	-	ND	ND	ND [ND]	ND	0.96 J	1.4 J	ND	ND	10.0 J	ND	1.5 J	2.0 J	0.8 J	1.5 J [0.6 J]	0.7 J [0.6 J]	ND	ND [1.8 J]

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-22S	MW-22S	MW-22S	MW-22S	MW-22S	MW-22S	MW-22S	MW-23D	MW-23D	MW-23D	MW-23D	MW-23D	MW-23D	MW-23D	MW-23D	MW-23D	MW-23D
Sample Date	GROUNDWATER QUALITY CRITERIA (7/22/2010) ug/L	6/24/2008	12/19/2008	7/1/2009	12/23/2009	6/30/2010	12/16/2010	12/29/2011	12/21/2004	6/28/2005	6/21/2006	12/20/2006	7/6/2006	12/27/2007	6/24/2008	12/19/2008	7/2/2009	12/23/2009
Unit	CHITCHIA (7/22/2010) US/ C	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)																		
Acetone	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	1 U	1 U	0.40 J	1 U	1 U	1.3	1 U	1 U	1 U	1.6	0.2 U	0.3 J	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	4 U	4 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U
Bromomethane	10	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U
2- Butanone	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	2 U	2 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U
Chlorobenzene	50	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U
Chloroethane	-	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U
2-Chloroethyl vinyl ether	=	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U
Chloroform	70	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.7 J	5 U	5 U	5 U	0.3	5 U	5 U	5 U	1 U	0.21 J
Chloromethane	-	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U
Dibromochloromethane	1	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U
1,1-Dichloroethane	50	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U
1,2-Dichloroethane	2	2 U	2 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U
1,1-Dichloroethene	1	2 U	2 U	1 U	1 U	1 U	1 U	1 U	2.0	2 U	3.5	2.3	1.2	0.7 J	0.9 J	2 U	1 U	1.1
cis-1,2-Dichloroethene	70	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U
trans-1,2-Dichloroethene	100	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U
trans-1,3-Dichloropropene	-	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U
Ethylbenzene	700	4 U	4 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U
Methyl tert-butyl ether (MTBE)	70	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	0.5 J	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U
Methylene chloride	3	3 U	3 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U
t-Butyl Alcohol (TBA)	100	100 U	100 U	20 U	20 U	20 U	20 U	20 U	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	5 U	5 U	1 U	1 U	1 U	1 U	1 U	0.9 J	0.4 J	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	0.64 J
1,1,1-Trichloroethane	30	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U
1,1,2-Trichloroethane	3	3 U	3 U	1 U	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U
Trichloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.6 J	0.7 J	1 U	0.4 U	1 U	1 U	1 U	1 U	0.44 J
Trichlorofluoromethane	2000	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U
Vinyl chloride	1	5 U	5 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	5 U	1.0 J	0.2 U	5 U	5 U	5 U	1 U	1 U
Xylene (total)	1000	5 U	5 U	3 U	3 U	3 U	3 U	3 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U
Total VOCs	-	ND	ND	ND	0.4 J	ND	ND	1.3	3.6 J	1 J	4.7 J	4.9 J	1.5	1.0 J	0.9 J	ND	ND	2.4 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-23D	MW-23D	MW-23D	MW-23D	MW-23I	MW-23I	MW-23I	MW-23I	MW-23I	MW-23I	MW-23I	MW-23I	MW-23I	MW-23I	MW-23I	MW-23I	MW-23I
Sample Date		6/30/2010	12/16/2010	12/29/2011	12/20/2012	6/29/2004	12/21/2004	6/28/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	7/2/2009	12/23/2009	6/30/2010	12/16/2010
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)																		
Acetone	6000	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	1 U	0.15 J	0.36 J	1 U	1 U	1 U [1 U]	1 U	1.0	0.2 U	1 U	1 U	1 U	1 U [1 U]	0.39 J [0.43 J]	1 U [1 U]	1 U [1 U]
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Bromoform	4	1 U	1 U	1 U	NA	4 U	4 U	4 U [4 U]	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Bromomethane	10	1 U	1 U	1 U	NA	5 U	5 U	5 U [5 U]	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
2- Butanone	300	NA	NA	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	1 U	1 U	1 U	1 U	2 U	2 U	2 U [2 U]	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Chlorobenzene	50	1 U	1 U	1 U	NA	5 U	5 U	5 U [5 U]	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Chloroethane	-	1 U	1 U	1 U	1 U	5 U	5 U	5 U [5 U]	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
2-Chloroethyl vinyl ether	=	1 U	1 U	1 U	NA	5 U	5 U	5 U [5 U]	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Chloroform	70	1 U	1 U	1 U	1 U	4.8	0.6 J	5 U [5 U]	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Chloromethane	-	1 U	1 U	1 U	NA	5 U	5 U	5 U [5 U]	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Dibromochloromethane	1	1 U	1 U	1 U	1 U	5 U	5 U	5 U [5 U]	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,1-Dichloroethane	50	1 U	1 U	1 U	1 U	5 U	5 U	5 U [5 U]	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,2-Dichloroethane	2	1 U	1 U	1 U	1 U	2 U	2.6	1.2 J [1.2 J]	0.6 J	2 U	0.3 U	2 U	0.8 J	2 U	1 U [1 U]	1 U [1 U]	0.26 J [0.30 J]	1 U [1 U]
1,1-Dichloroethene	1	0.40 J	1 U	0.49 J	1 U	0.7 J	1.3 J	1.0 J [1.0 J]	1.1 J	2 U	0.5 U	2 U	0.5 J	2 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
cis-1,2-Dichloroethene	70	1 U	1 U	1 U	1 U	0.9 J	5 U	5 U [5 U]	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
trans-1,2-Dichloroethene	100	1 U	1 U	1 U	1 U	5 U	5 U	5 U [5 U]	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,2-Dichloropropane	1	1 U	1 U	1 U	NA	1 U	1 U	1 U [1 U]	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
cis-1,3-Dichloropropene	-	1 U	1 U	1 U	NA	5 U	5 U	5 U [5 U]	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
trans-1,3-Dichloropropene	-	1 U	1 U	1 U	NA	5 U	5 U	5 U [5 U]	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Ethylbenzene	700	1 U	1 U	1 U	1 U	4 U	4 U	4 U [4 U]	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Methyl tert-butyl ether (MTBE)	70	1 U	1 U	1 U	1 U	5 U	5 U	5 U [5 U]	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Methylene chloride	3	1 U	1 U	1 U	1 U	2.4 J	3 U	3 U [3 U]	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
t-Butyl Alcohol (TBA)	100	20 U	20 U	20 U	NA	100 U	100 U	100 U [100 U]	100 U	100 U	6.5 U	100 U	100 U	14 J	20 U [20 U]	20 U [20 U]	20 U [20 U]	20 U [20 U]
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Tetrachloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Toluene	600	1 U	1 U	1 U	1 U	5 U	2.5 J	0.5 J [0.5 J]	1.2 J	5 U	0.3 U	5 U	5 U	5 U	1 U [1 U]	0.23 J [0.35 J]	1 U [1 U]	1 U [1 U]
1,1,1-Trichloroethane	30	1 U	1 U	1 U	1 U	5 U	5 U	5 U [5 U]	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
1,1,2-Trichloroethane	3	1 U	1 U	1 U	1 U	3 U	3 U	3 U [3 U]	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Trichloroethene	1	1 U	1 U	1 U	1 U	1.2	0.9 J	0.9 J [1.0 J]	0.7 J	1 U	0.4 U	1 U	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Trichlorofluoromethane	2000	1 U	1 U	1 U	NA	5 U	5 U	5 U [5 U]	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Vinyl chloride	1	1 U	1 U	1 U	1 U	5 U	5 U	5 U [5 U]	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]
Xylene (total)	1000	3 U	3 U	3 U	3 U	5 U	5 U	5 U [5 U]	0.9 J	5 U	0.4 U	5 U	5 U	5 U	3 U [3 U]	3 U [3 U]	3 U [3 U]	3 U [3 U]
Total VOCs	-	0.40 J	ND	0.64 J	0.36 J	10 J	7.9 J	3.6 J [3.7 J]	4.5 J	1.0	ND	ND	1.3 J	14 J	ND [ND]	0.62 J [0.78 J]	0.26 J [0.30 J]	ND [ND]

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-23I	MW-23I	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S	MW-23S
Sample Date	GROUNDWATER QUALITY	12/29/2011	12/20/2012	6/29/2004	12/21/2004	6/28/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	7/2/2009	12/23/2009	6/30/2010	12/16/2010	12/29/2011	8/16/2012
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)		-6/ -	-6/-	6/ -	-0, -	0/ -		0, -		6, -	6/ -		6/ -	6, -	0/	6/	6/ -	-8,-
Acetone	6000	NA	33	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48
Benzene	1	1 U	1 U	10 U [10 U]	25 U [25 U]	5 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	0.16 J	0.20 J	0.56 J
Bromodichloromethane	1	1 U	1 U	10 U [10 U]	25 U [25 U]	5 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	1 U	NA	40 U [40 U]	100 U [100 U]	20 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA
Bromomethane	10	1 U	NA	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA
2- Butanone	300	NA	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.8 J
Carbon Disulfide	700	NA	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1 U
Carbon tetrachloride	1	1 U	1 U	20 U [20 U]	50 U [50 U]	10 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	1 U	NA	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA
Chloroethane	-	1 U	1 U	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
2-Chloroethyl vinyl ether	-	1 U	NA	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.2 U	5 U	5 U	5 U	NA	NA	NA	NA	NA	NA
Chloroform	70	1 U	1 U	29 J [23 J]	37 J [38 J]	32	22	14	14	6.1	3.6 J	0.8 J	1.0	1.6	4.0	4.5	3.8	1 U
Chloromethane	-	1 U	NA	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA
Dibromochloromethane	1	1 U	1 U	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	50	1 U	1 U	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	0.17 J	1 U	1 U
1,2-Dichloroethane	2	0.56 J	1 U	230 [220]	220 [220]	240	110	51	46	19	11	4.2	5.2	8.9	21	30	27	1 U
1,1-Dichloroethene	1	0.20 J	1 U	20 U [20 U]	50 U [50 U]	10 U	2 U	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	0.53 J
cis-1,2-Dichloroethene	70	1 U	1 U	68 [74]	50 J [49 J]	45	28	11	14	4.7 J	2.0 J	0.4 J	2.2	2.9	12	15	9.9	1 U
trans-1,2-Dichloroethene	100	1 U	1 U	50 U [50 U]	120 U [120 U]	25 U	0.6 J	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	0.20 J	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	NA	10 U [10 U]	25 U [25 U]	5 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA
cis-1,3-Dichloropropene	-	1 U	NA	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA
trans-1,3-Dichloropropene	-	1 U	NA	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA
Ethylbenzene	700	1 U	1 U	40 U [40 U]	100 U [100 U]	20 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether (MTBE)	70	1 U	1 U	50 U [50 U]	120 U [120 U]	25 U	0.5 J	5 U	0.3 U	5 U	5 U	5 U	1 U	NA	1 U	1 U	1 U	NA
Methylene chloride	3	1 U	1 U	1500 [1400]	3200 [3200]	550	150	72	17	8.2	2.3 J	1.4 J	1 U	1 U	4.9	12	7.0	1 U
t-Butyl Alcohol (TBA)	100	20 U	NA	U]	U]	500 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	NA	20 U	20 U	20 U	NA
1,1,2,2-Tetrachloroethane	1	1 U	1 U	10 U [10 U]	25 U [25 U]	5 U	1.3	1.0	1.0	0.4 J	1 U	1 U	1 U	0.21 J	0.53 J	0.51 J	0.58 J	1 U
Tetrachloroethene	1	1 U	1 U	10 U [10 U]	25 U [25 U]	5 U	0.8 J	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	1 U	1 U	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	30	1 U	1 U	50 U [50 U]	120 U [120 U]	25 U	1.0 J	0.6 J	0.6	5 U	5 U	5 U	1 U	1 U	1 U	1 U	0.29 J	1 U
1,1,2-Trichloroethane	3	1 U	1 U	30 U [30 U]	75 U [75 U]	15 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1	1 U	1 U	37 [36]	22 J [21 J]	24	13	5.4	6.4	2.1	1.4	1 U	0.68 J	0.66 J	5.2	8.9	1 U	1 U
Trichlorofluoromethane	2000	1 U	NA	50 U [11 J]	120 U [120 U]	25 U	1.2 J	5 U	0.4 U	5 U	5 U	5 U	NA	NA	NA	NA	6.6	NA
Vinyl chloride	1	1 U	1 U	50 U [50 U]	120 U [120 U]	25 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	1000	3 U	3 U	50 U [50 U]	120 U [120 U]	25 U	0.6 J	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U
Total VOCs	-	0.76 J	33	J]	J]	891	329 J	155 J	99	40.5 J	20.3	6.8 J	9.1 J	14.3 J	47.8 J	71.2 J	55.4 J	51.89 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-23S	MW-24	MW-24	MW-24	MW-24	MW-24	MW-24	MW-24	MW-24	MW-24	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25	MW-25
Sample Date	GROUNDWATER QUALITY	12/20/2012	6/24/2008	12/19/2008	7/1/2009	12/23/2009	6/30/2010	12/16/2010	12/29/2011	7/10/2012	12/20/2012	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)				<u> </u>				<u> </u>		<u> </u>								
Acetone	6000	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	NA
Benzene	1	0.12 J [0.10 J]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.14 J [0.13 J]	0.5 J	1 U	1 U	1 U	0.41 J	1 U	0.44 J	1 U
Bromodichloromethane	1	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	NA	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA [NA]	NA	4 U	4 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	10	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA [NA]	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U
2- Butanone	300	5 U [5 U]	NA	NA	NA	NA	NA	NA	NA	5 U [5 U]	5 U	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	1 U [1 U]	NA	NA	NA	NA	NA	NA	NA	1 U [1 U]	1 U	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	1 U [1 U]	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	0.5 J	0.7 J	1 U	0.21 J	0.55 J	1 U	0.40 J
Chlorobenzene	50	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA [NA]	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	-	1 U [1 U]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U
2-Chloroethyl vinyl ether	=	NA	5 U	5 U	NA	NA	NA	NA	1 U	NA [NA]	NA	5 U	5 U	NA	NA	NA	NA	NA
Chloroform	70	0.57 J [0.55 J]	5 U	5 U	1 U	0.25 J	1 U	1 U	1 U	0.13 J [0.13 J]	1 U	5.0	1.9 J	5.7	2.4	3.0	0.49 J	1.4
Chloromethane	=	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA [NA]	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1	1 U [1 U]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	50	1 U [1 U]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 U	5 U	1 U	0.41 J	1 U	0.24 J	1 U
1,2-Dichloroethane	2	5.5 [5.5]	2 U	2 U	1 U	1 U	1 U	1.4	1 U	1 U [1 U]	1 U	4.5	0.6 J	2.8	34	4.7	45	8.2
1,1-Dichloroethene	1	1 U [1 U]	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	1.1 [1.1]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	8.7	1.3 J	13	14	14	3.0	4.3
trans-1,2-Dichloroethene	100	1 U [1 U]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 U	5 U	1 U	0.28 J	0.23 J	0.27 J	1 U
1,2-Dichloropropane	1	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA [NA]	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA [NA]	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	-	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA [NA]	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	1 U [1 U]	4 U	4 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether (MTBE)	70	1 U [1 U]	5 U	5 U	1 U	NA	1 U	1 U	1 U	1 U [1 U]	1 U	5 U	5 U	1 U	NA	1 U	1 U	1 U
Methylene chloride	3	1.8 [1.7]	3 U	3 U	1 U	1 U	1 U	1.7	1 U	1 U [1 U]	1 U	3 U	3 U	1 U	2.5	0.82 J	1.1	1.6
t-Butyl Alcohol (TBA)	100	NA	100 U	100 U	20 U	NA	20 U	20 U	20 U	NA [NA]	NA	100 U	100 U	20 U	NA	20 U	20 U	5.2 J
1,1,2,2-Tetrachloroethane	1	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	0.13 J	0.21 J [0.18 J]	1 U	1 U	1 U	1 U	0.34 J	1 U	1 U	0.11 J
Tetrachloroethene	1	1 U [1 U]	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	0.12 J	0.6 J	1 U	0.63 J	0.55 J	1.1	0.39 J	0.41 J
Toluene	600	1 U [1 U]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	30	1 U [1 U]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	0.7 J	5 U	1 U	1.3	0.58 J	1.2	1 U
1,1,2-Trichloroethane	3	1 U [1 U]	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U
Trichloroethene	1	1.2 [1.2]	1 U	1 U	1 U	1 U	1 U	0.52 J	1 U	1 U [1 U]	1 U	8.0	1.2	9.7	41	9.6	37	1 U
Trichlorofluoromethane	2000	NA	5 U	5 U	NA	NA	NA	NA	1 U	NA [NA]	NA	5 U	5 U	NA	NA	NA	NA	4.8
Vinyl chloride	1	1 U [1 U]	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U
Xylene (total)	1000	3 U [3 U]	5 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U [3 U]	3 U	5 U	5 U	3 U	3 U	3 U	1.0 J	3 U
Total VOCs	-	J]	ND	ND	ND	0.25 J	ND	3.62 J	0.13 J	0.48 J [0.44 J]	0.62 J	28 J	5.7 J	31.8 J	97.4 J	34.6 J	90.1 J	26.4 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-25	MW-25	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-26	MW-27	MW-27	MW-27	MW-27	MW-27	MW-27
Sample Date	GROUNDWATER QUALITY	7/11/2012	12/20/2012	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	7/11/2012	12/20/2012	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)			-6/-	-0, -	-6, -	-0, -	-6, -	-0/-	6/ -	-6/ -	6/ -	0, -	0/	6/ -	6/ -	-0, -		-8, -
Acetone	6000	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	1 U	1 U	1 U	1 U	1 U	0.74 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	NA	NA	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA	NA	4 U	4 U	1 U	1 U	1 U	1 U
Bromomethane	10	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U
2- Butanone	300	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	0.55 J	1 U	2 U	9.8	3.4	1.6	1 U	1.0	1.3	1.6	0.44 J	2 U	2 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U
Chloroethane	-	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U
2-Chloroethyl vinyl ether	-	NA	NA	5 U	5 U	NA	NA	NA	NA	1 U	NA	NA	5 U	5 U	NA	NA	NA	NA
Chloroform	70	1.4	0.56 J	2.8 J	10	8.0	3.8	1.2	0.67 J	2.6	3.9	0.75 J	5 U	0.7 J	2.0	2.1	0.48 J	0.20 J
Chloromethane	-	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	50	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	2	6.2	7.6	20	2	40	16	120	28	6.8	11	10	2 U	2 U	1 U	1 U	1 U	1 U
1,1-Dichloroethene	1	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	8.2	29	8.2	5 U	1.4	2.1	11	4.4	0.34 J	6	3.9	5 U	4.3 J	1 U	1 U	1 U	1 U
trans-1,2-Dichloroethene	100	1 U	1.5	5 U	5 U	1 U	1 U	0.22 J	1 U	1 U	0.44 J	1 U	5 U	0.5 J	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	-	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	1 U	1 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	4 U	1 U	1 U	1 U	1.0
Methyl tert-butyl ether (MTBE)	70	1 U	1 U	5 U	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	5 U	5 U	1 U	NA	1 U	1 U
Methylene chloride	3	1.9	2.6	1.2 J	3 U	1.1	0.85 J	16	2.1	0.37 J	1.1	1.3	3 U	3 U	1 U	1 U	1 U	1 U
t-Butyl Alcohol (TBA)	100	NA	NA	100 U	100 U	20 U	NA	20 U	20 U	20 U	NA	NA	100 U	100 U	20 U	NA	20 U	20 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	3.0	3.0	1.8	2.4	0.43 J	1.5	1.7	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1	0.38 J	0.73 J	0.4 J	4.7	0.79 J	0.62 J	0.71 J	0.92 J	0.42 J	0.44 J	0.28 J	5.2	1 U	1 U	0.65 J	0.35 J	0.60 J
Toluene	600	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	30	1 U	0.21 J	5 U	5 U	1 U	1 U	1 U	0.35 J	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	3	1 U	1 U	3 U	3 U	1 U	1 U	0.34 J	1 U	1 U	1 U	1 U	3 U	3 U	1 U	1 U	1 U	1 U
Trichloroethene	1	6	27	6.8	1.2	2.1	1.6	9.0	17	1 U	7.3	4.7	10	57	16	8.5	4.7	4.7
Trichlorofluoromethane	2000	NA	NA	5 U	5 U	NA	NA	NA	NA	1.2	NA	NA	5 U	5 U	NA	NA	NA	NA
Vinyl chloride	1	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U
Xylene (total)	1000	3 U	3 U	5 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	5 U	5 U	3 U	3 U	3 U	2.4 J
Total VOCs	-	24.63 J	69.2 J	39.4 J	30.7	59.8 J	28.4 J	161.6 J	54.9 J	14.5 J	33.48 J	21.37 J	15.2	62.5 J	18	11.3 J	5.53 J	8.9 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	MW-27	MW-27	MW-27	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	MW-28	PZ-1S	PZ-1S	PZ-1S	PZ-1S	PZ-1S
Sample Date	GROUNDWATER QUALITY	12/29/2011	7/10/2012	12/20/2012	6/24/2008	12/19/2008	6/30/2009	12/23/2009	6/29/2010	12/16/2010	12/29/2011	7/11/2012	12/20/2012	12/19/2008	7/1/2009	12/23/2009	6/30/2010	12/16/2010
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)								<u> </u>										
Acetone	6000	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA
Benzene	1	0.31 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 J	1 U	1 U	1 U	0.39 J
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	1 U	NA	NA	4 U	4 U	1 U	1 U	1 U	1 U	1 U	NA	NA	4 U	1 U	1 U	1 U	1 U
Bromomethane	10	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	1 U	1 U	1 U	1 U
2- Butanone	300	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	1 U	1 U	NA	NA	NA	NA	NA
Carbon tetrachloride	1	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
Chlorobenzene	50	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	1 U	1 U	1 U	1 U
Chloroethane	=	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
2-Chloroethyl vinyl ether	-	NA	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	5 U	1 U	NA	1 U	NA
Chloroform	70	0.27 J	1 U	1 U	5 U	5 U	1 U	0.67 J	1 U	0.59 J	1 U	1 U	1 U	3.0 J	0.46 J	0.16 J	1 U	0.31 J
Chloromethane	-	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	1 U	1 U	1 U	1 U
Dibromochloromethane	1	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	50	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	2	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	20	4.9	6.3	3.2	32
1,1-Dichloroethene	1	1 U	1 U	1 U	2 U	2 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	7.1	0.94 J	0.39 J	0.61 J	0.99 J
trans-1,2-Dichloroethene	100	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	1 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	-	1 U	NA	NA	5 U	5 U	1 U	1 U	1 U	1 U	1 U	NA	NA	5 U	1 U	1 U	1 U	1 U
Ethylbenzene	700	1 U	1 U	1 U	4 U	4 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	4 U	1 U	1 U	1 U	1 U
Methyl tert-butyl ether (MTBE)	70	1 U	1 U	1 U	5 U	5 U	1 U	NA	1 U	1 U	1 U	1 U	1 U	5 U	1 U	NA	1 U	1 U
Methylene chloride	3	1 U	1 U	1 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.9 J	1 U	2.4	1 U	0.69 J
t-Butyl Alcohol (TBA)	100	20 U	NA	NA	100 U	100 U	20 U	NA	20 U	20 U	20 U	NA	NA	100 U	20 U	NA	20 U	20 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Tetrachloroethene	1	0.27 J	0.26 J	0.47 J	0.7 J	2.0	1.0	0.27 J	0.39 J	1 U	0.50 J	0.57 J	0.67 J	1 U	1 U	1 U	1 U	0.28 J
Toluene	600	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
1,1,1-Trichloroethane	30	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.7 J	1 U	1 U	1 U	0.80 J
1,1,2-Trichloroethane	3	1 U	1 U	1 U	3 U	3 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	3 U	1 U	1 U	1 U	1 U
Trichloroethene	1	1 U	13	9.5	1 U	1 U	0.59 J	3.2	0.29 J	4.6	1 U	0.64 J	0.64 J	17	2.1	1.8	2.3	11
Trichlorofluoromethane	2000	9.6	NA	NA	5 U	5 U	NA	NA	NA	NA	0.47 J	NA	NA	5 U	1 U	1 U	1 U	1 U
Vinyl chloride	1	1 U	1 U	1 U	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	5 U	1 U	1 U	1 U	1 U
Xylene (total)	1000	3 U	3 U	3 U	5 U	5 U	3 U	3 U	3 U	3 U	3 U	3 U	3 U	0.2 J	3 U	3 U	3 U	3 U
Total VOCs	-	10.5 J	13.26 J	9.97 J	0.7 J	2	1.6 J	4.1 J	0.68 J	5.19 J	0.97 J	1.21 J	1.31 J	49.3 J	8.4 J	11.1 J	6.1 J	46.7 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

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regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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		DT 40	DT 40	DT 40	11100 444	11100 414	11100 414	11100 484		11100 414			11100 444	11100 484		11100 414	11100 414
Sample ID	NJ CLASS IIA	PZ-1S	PZ-1S	PZ-1S	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1M
Sample Date	GROUNDWATER QUALITY CRITERIA (7/22/2010) ug/L	12/29/2011	7/10/2012	12/20/2012	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	7/1/2009	12/23/2009	6/30/2010
Unit	CRITCRIA (7/22/2010) ug/ L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)																	
Acetone	6000	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	1 U	1 U	1 U [1 U]	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	0.2 U [0.2 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U
Bromodichloromethane	1	1 U	1 U	0.38 J	1 U [1 U]	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	0.2 U [0.2 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U
Bromoform	4	1 U	NA	NA	4 U [4 U]	4 U	4 U	4 U [4 U]	4 U [4 U]	4 U [4 U]	0.2 U [0.2 U]	4 U [4 U]	4 U [4 U]	4 U [4 U]	1 U [1 U]	1 U	1 U
Bromomethane	10	1 U	NA	NA	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
2- Butanone	300	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	1 U	1 U	1 U	2 U [2 U]	2 U	2 U	2 U [2 U]	2 U [2 U]	2 U [2 U]	0.3 U [0.3 U]	2 U [2 U]	2 U [2 U]	2 U [2 U]	1 U [1 U]	1 U	1 U
Chlorobenzene	50	1 U	NA	NA	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.2 U [0.2 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
Chloroethane	-	1 U	1 U	1 U	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
2-Chloroethyl vinyl ether	-	1 U	NA	NA	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.2 U [0.2 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	NA
Chloroform	70	0.18 J	1 U	1.6	1.8 J [1.8 J]	2.4 J	1.8 J	2.0 J [2.1 J]	1.0 J [1.3 J]	1.1 J [1.0 J]	0.7 [0.7]	1.2 J [1.1 J]	0.6 J [0.6 J]	0.9 J [0.8 J]	0.68 J [0.58 J]	0.21 J	0.33 J
Chloromethane	-	1 U	NA	NA	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
Dibromochloromethane	1	1 U	1 U	1 U	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.3 U [0.3 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
1,1-Dichloroethane	50	1 U	1 U	1 U	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.3 U [0.3 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
1,2-Dichloroethane	2	5.0	0.24 J	4.8	14 [15]	34	11	44 [46]	12 [12]	35 [36]	5.6 [6.0]	55 [54]	8.9 [9.3]	90 [81]	29 [28]	19	7.5
1,1-Dichloroethene	1	1 U	1 U	1 U	0.6 J [0.5 J]	0.6 J	0.8 J	2 U [2 U]	1.0 J [0.9 J]	0.6 J [0.6 J]	1.1 [1.0]	2 U [2 U]	1.0 J [0.9 J]	2 U [2 U]	1 U [1 U]	0.31 J	0.39 J
cis-1,2-Dichloroethene	70	0.33 J	0.23 J	1.9	14 [15]	9	5.8	8.5 [8.5]	3.2 J [3.0 J]	6.3 [6.1 J]	4.1 [4.1]	11 [11]	1.0 J [1.0 J]	11 [10]	4.4 [4.2]	3.1	1.3
trans-1,2-Dichloroethene	100	1 U	1 U	1 U	0.3 J [0.3 J]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
1,2-Dichloropropane	1	1 U	NA	NA	1 U [1 U]	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	0.5 U [0.5 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U
cis-1,3-Dichloropropene		1 U	NA	NA	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.1 U [0.1 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
trans-1,3-Dichloropropene	-	1 U	NA	NA	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.2 U [0.2 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
Ethylbenzene	700	1 U	1 U	1 U	4 U [4 U]	4 U	4 U	4 U [4 U]	4 U [4 U]	4 U [4 U]	0.4 U [0.4 U]	4 U [4 U]	4 U [4 U]	4 U [4 U]	1 U [1 U]	1 U	1 U
Methyl tert-butyl ether (MTBE)	70	1 U	1 U	1 U	5 U [5 U]	5 U	5 U	5 U [5 U]	0.6 J [0.6 J]	5 U [5 U]	0.3 U [0.3 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
Methylene chloride	3	0.72 J	1 U	1.6	1.7 J [1.8 J]	1 J	3 U	1.1 J [1.2 J]	0.8 J [0.7 J]	0.7 J [0.7 J]	0.8 [0.8]	0.7 J [0.7 J]	0.8 J [0.8 J]	0.9 J [0.9 J]	1 U [1 U]	1 U	0.72 J
t-Butyl Alcohol (TBA)	100	20 U	NA	NA	100 U [100 U]	100 U	100 U	100 U [100 U]	100 U [100 U]	100 U [100 U]	6.5 U [6.5 U]	100 U [100 U]	100 U [100 U]	7.9 J [10 J]	20 U [20 U]	20 U	20 U
1,1,2,2-Tetrachloroethane	1	1 U	0.53 J	1 U	1.5 [1.3]	1.1	0.9 J	0.8 J [0.8 J]	1 U [0.5 J]	0.6 J [0.5 J]	0.4 [0.4]	0.7 J [0.7 J]	1 U [1 U]	0.3 J [0.3 J]	1 U [0.29 J]	0.16 J	1 U
Tetrachloroethene	1	1 U	0.6 J	0.25 J	0.3 J [1 U]	1 U	1 U	1 U [1 U]	1 U [1 U]	1 U [1 U]	0.4 U [0.4 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U [1 U]	1 U	1 U
Toluene	600	1 U	1 U	1 U	5 U [5 U]	2.4 J	0.8 J	5 U [5 U]	0.4 J [0.4 J]	5 U [5 U]	0.3 U [0.3 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1.3	1 U
1,1,1-Trichloroethane	30	1 U	1 U	1 U	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
1,1,2-Trichloroethane	3	1 U	1 U	1 U	3 U [3 U]	3 U	3 U	3 U [3 U]	3 U [3 U]	3 U [3 U]	0.2 U [0.2 U]	3 U [3 U]	3 U [3 U]	3 U [3 U]	1 U [1 U]	1 U	1 U
Trichloroethene	1	1 U	0.68 J	4.2	8 [8.1]	4.1	4.2	4.4 [4.1]	2.6 [2.4]	3 [2.9]	2.7 [2.8]	6.4 [5.8]	1.2 [1.2]	5.5 [5.6]	2.7 [2.4]	1.6	0.7 J
Trichlorofluoromethane	2000	1.1	NA	NA	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
Vinyl chloride	1	1 U	1 U	1 U	5 U [5 U]	5 U	5 U	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.2 U [0.2 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	1 U [1 U]	1 U	1 U
Xylene (total)	1000	3 U	3 U	3 U	5 U [5 U]	5 U	0.6 J	5 U [5 U]	5 U [5 U]	5 U [5 U]	0.4 U [0.4 U]	5 U [5 U]	5 U [5 U]	5 U [5 U]	3 U [3 U]	3 U	3 U
Total VOCs	-	7.33 J	2.28 J	14.73 J	42.2 J [43.8 J]	54.6 J	25.9 J	60.8 J [62.7 J]	21.6 J [21.8 J]	47.3 J [47.8 J]	15.4 [15.8]	75 J [73.3 J]	13.5 [13.8]	116.5 J [108.6 J]	36.8 J [35.5 J]	25.7 J	10.9 J

U Not Detected Above Detection Limits

Not Sampled

Bolded value indicates a detect above detection limits

Red bolded value indicates a detection that exceeds

regulatory criteria

Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	WCC-1M	WCC-1M	WCC-1M	WCC-1M	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-1S
Sample Date	GROUNDWATER QUALITY	12/16/2010	12/29/2011	7/11/2012	12/20/2012	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	12/27/2007	6/24/2008	12/19/2008	7/2/2009	12/23/2009	6/30/2010
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)				<u> </u>											- <i></i>			Ü.
Acetone	6000	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	0.22 J	1 U	0.45 J	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Bromoform	4	1 U	1 U	NA	NA	4 U	4 U	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U [1 U]	1 U
Bromomethane	10	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
2- Butanone	300	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U [1 U]	1 U
Chlorobenzene	50	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
Chloroethane	-	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
2-Chloroethyl vinyl ether	-	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
Chloroform	70	0.54 J	0.41 J	0.32 J	0.54 J	17	5 U	5 U	5 U	5 U	5 U	1.2	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
Chloromethane	-	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
Dibromochloromethane	1	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
1,1-Dichloroethane	50	0.24 J	1 U	1 U	1 U	0.8 J	5 U	0.8 J	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
1,2-Dichloroethane	2	56	3.5	3.7	49	74	2 U	77	2 U	2 U	1.0 J	6.5	2 U	2 U	2 U	1 U	1 U [1 U]	0.51 J
1,1-Dichloroethene	1	1 U	0.48 J	0.47 J	1 U	2 U	2 U	2 U	2 U	2 U	2 U	0.5 U	2 U	2 U	2 U	1 U	1 U [1 U]	1 U
cis-1,2-Dichloroethene	70	9.0	1.4	1.5	11	26	5 U	17	5 U	5 U	5 U	1.6	5 U	5 U	5 U	1 U	1 U [1 U]	0.49 J
trans-1,2-Dichloroethene	100	1 U	1 U	1 U	1 U	0.8 J	5 U	0.7 J	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
1,2-Dichloropropane	1	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
cis-1,3-Dichloropropene	=	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
trans-1,3-Dichloropropene	-	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
Ethylbenzene	700	1 U	1 U	1 U	1 U	4 U	4 U	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U [1 U]	1 U
Methyl tert-butyl ether (MTBE)	70	1 U	1 U	1 U	1 U	0.6 J	5 U	0.9 J	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
Methylene chloride	3	0.60 J	0.50 J	1 U	1 U	8.7	3 U	1.3 J	3 U	3 U	3 U	1.4	3 U	3 U	3 U	1 U	1 U [1 U]	1 U
t-Butyl Alcohol (TBA)	100	20 U	20 U	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	100 U	20 U	20 U [20 U]	20 U
1,1,2,2-Tetrachloroethane	1	0.30 J	0.19 J	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Tetrachloroethene	1	1 U	1 U	1 U	1 U	1.0	1 U	0.5 J	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U [1 U]	1 U
Toluene	600	1 U	1 U	1 U	1 U	5 U	5 U	0.5 J	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
1,1,1-Trichloroethane	30	1 U	1 U	1 U	1 U	0.9 J	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
1,1,2-Trichloroethane	3	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U [1 U]	1 U
Trichloroethene	1	4.7	1 U	2.1	4.8	14	1 U	7.7	1 U	1 U	1 U	2.3	1 U	1 U	1 U	1 U	1 U [1 U]	0.82 J
Trichlorofluoromethane	2000	1 U	1.6	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
Vinyl chloride	1	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U [1 U]	1 U
Xylene (total)	1000	3 U	3 U	3 U	3 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	3 U [3 U]	3 U
Total VOCs	-	71.4 J	8.3 J	8.09 J	65.79 J	144 J	ND	106.4 J	ND	ND	1.0 J	13.0	ND	ND	ND	ND	ND [ND]	1.82 J

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Not Sampled

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Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID	NJ CLASS IIA	WCC-1S	WCC-1S	WCC-1S	WCC-1S	WCC-3M	WCC-3M	WCC-3M	WCC-3M	WCC-3M	WCC-3M	WCC-3M	WCC-3M	WCC-3M	WCC-3M	WCC-3M	WCC-3M	WCC-3M
Sample Date	GROUNDWATER QUALITY	12/16/2010	12/29/2011	7/11/2012	12/20/2012	6/29/2004	12/20/2004	6/28/2005	12/21/2005	6/21/2006	12/20/2006	7/6/2007	1/22/2008	6/24/2008	12/19/2008	7/2/2009	12/23/2009	6/30/2010
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)				<u> </u>				<u> </u>	- J.	- J.	<u> </u>	<u> </u>	<u> </u>		- <i></i>		<u> </u>	J.
Acetone	6000	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Benzene	1	1 U	1 U	0.13 J	0.17 J	0.5 J	1 U	1 U	1 U	1 U	1 U	0.3	0.4 J	0.3 J	1 U	1 U	0.45 J	0.32 J
Bromodichloromethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.2 U	1 U	1 U	1 U	1 U	1 U	1 U
Bromoform	4	1 U	1 U	NA	NA	4 U	4 U	4 U	4 U	4 U	4 U	0.2 U	4 U	4 U	4 U	1 U	1 U	1 U
Bromomethane	10	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U
2- Butanone	300	NA	NA	5 U	5 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Disulfide	700	NA	NA	1 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon tetrachloride	1	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U
Chlorobenzene	50	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U
Chloroethane	-	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U
2-Chloroethyl vinyl ether	-	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U
Chloroform	70	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	0.3 J	1 U	0.18 J	0.28 J
Chloromethane	-	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U
Dibromochloromethane	1	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U
1,1-Dichloroethane	50	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	5 U	1 U	1 U	1 U
1,2-Dichloroethane	2	1 U	23	5.3	0.92 J	2 U	2 U	2 U	2 U	2 U	2 U	0.3 U	2 U	2 U	2 U	1 U	1 U	1 U
1,1-Dichloroethene	1	1 U	1 U	1 U	1 U	2 U	2 U	2 U	2 U	2 U	2 U	0.6	0.6 J	0.5 J	2 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	1 U	7.9	3.3	0.41 J	5 U	5 U	5 U	5 U	5 U	5 U	0.3 U	5 U	5 U	0.2 J	1 U	0.20 J	1 U
trans-1,2-Dichloroethene	100	1 U	0.22 J	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U
1,2-Dichloropropane	1	1 U	1 U	NA	NA	1 U	1 U	1 U	1 U	1 U	1 U	0.5 U	1 U	1 U	1 U	1 U	1 U	1 U
cis-1,3-Dichloropropene	-	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.1 U	5 U	5 U	5 U	1 U	1 U	1 U
trans-1,3-Dichloropropene	=	1 U	1 U	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U
Ethylbenzene	700	1 U	1 U	1 U	1 U	0.7 J	4 U	4 U	4 U	4 U	4 U	0.4 U	4 U	4 U	4 U	1 U	1 U	1 U
Methyl tert-butyl ether (MTBE)	70	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	1.4 J	0.6 J	0.6	1.8 J	0.8 J	0.3 J	1 U	0.74 J	0.70 J
Methylene chloride	3	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U	3 U	0.4 U	3 U	3 U	3 U	1 U	1 U	1 U
t-Butyl Alcohol (TBA)	100	20 U	20 U	NA	NA	100 U	100 U	100 U	100 U	100 U	100 U	6.5 U	100 U	100 U	9.8 J	20 U	20 U	20 U
1,1,2,2-Tetrachloroethane	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.5 J	0.8	1.0	1.0 J	0.7 J	1.3	0.88 J	0.50 J
Tetrachloroethene	1	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	1 U	1 U
Toluene	600	1 U	1 U	1 U	1 U	5 U	1.5 J	5 U	5 U	5 U	5 U	0.5	5 U	5 U	5 U	1 U	0.22 J	1 U
1,1,1-Trichloroethane	30	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U
1,1,2-Trichloroethane	3	1 U	1 U	1 U	1 U	3 U	3 U	3 U	3 U	3 U	3 U	0.2 U	3 U	3 U	3 U	1 U	1 U	1 U
Trichloroethene	1	1 U	1 U	1.7	0.52 J	1 U	1 U	1 U	1 U	1 U	1 U	0.4 U	1 U	1 U	1 U	1 U	0.34 J	0.26 J
Trichlorofluoromethane	2000	1 U	3.4	NA	NA	5 U	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	1 U	1 U	1 U
Vinyl chloride	1	1 U	1 U	1 U	1 U	5 U	5 U	5 U	5 U	5 U	5 U	0.2 U	5 U	5 U	5 U	1 U	1 U	1 U
Xylene (total)	1000	3 U	3 U	3 U	3 U	5.7	5 U	5 U	5 U	5 U	5 U	0.4 U	5 U	5 U	5 U	3 U	0.44 J	3 U
Total VOCs	-	ND	35.5 J	10.43 J	2.02 J	6.9 J	1.5 J	ND	ND	1.4 J	1.1 J	2.8	3.8 J	2.6 J	11.3 J	1.3	3.5 J	2.06 J

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Not Sampled

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Red bolded value indicates a detection that exceeds

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Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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Sample ID Sample Date	NJ CLASS IIA GROUNDWATER QUALITY CRITERIA (7/22/2010) ug/L	WCC-3M 12/16/2010	WCC-3M 12/29/2011	WCC-3M 7/11/2012	WCC-3M 1/9/2013	IW-3S 7/12/2012	IW-4S 7/12/2012	IW1-BT-2 7/10/2012
Unit	CRITERIA (7/22/2010) ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
(VOCs)								
Acetone	6000	NA	NA	5 U [5 U]	5 U	51	5 U	5 U
Benzene	1	NA	NA	0.3 J [0.25 J]	0.24 J	0.27 J	1 U	1 U
Bromodichloromethane	1	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U
Bromoform	4	NA	NA	NA	NA	NA	NA	NA
Bromomethane	10	NA	NA	NA	NA	NA	NA	NA
2- Butanone	300	NA	NA	1 U [1 U]	1 U	2.8 J	5 U	5 U
Carbon Disulfide	700	NA	NA	1 U [1 U]	1 U	0.77 J	1 U	1 U
Carbon tetrachloride	1	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U
Chlorobenzene	50	NA	NA	NA	NA	NA	NA	NA
Chloroethane	-	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U
2-Chloroethyl vinyl ether	-	NA	NA	NA	NA	NA	NA	NA
Chloroform	70	NA	NA	0.25 J [0.31 J]	0.38 J	1.5	0.26 J	1 U
Chloromethane	-	NA	NA	NA	NA	NA	NA	NA
Dibromochloromethane	1	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U
1,1-Dichloroethane	50	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U
1,2-Dichloroethane	2	NA	NA	1 U [1 U]	1 U	140	1 U	1 U
1,1-Dichloroethene	1	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U
cis-1,2-Dichloroethene	70	NA	NA	1 U [1 U]	1 U	0.61 J	0.37 J	38
trans-1,2-Dichloroethene	100	NA	NA	1 U [1 U]	1 U	1 U	1 U	0.69 J
1,2-Dichloropropane	1	NA	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	-	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	-	NA	NA	NA	NA	NA	NA	NA
Ethylbenzene	700	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U
Methyl tert-butyl ether (MTBE)	70	NA	NA	0.22 J [0.28 J]	1 U	1 U	1 U	1 U
Methylene chloride	3	NA	NA	1 U [1 U]	1 U	2.8	1 U	1 U
t-Butyl Alcohol (TBA)	100	NA	NA	NA	NA	NA	NA	NA
1,1,2,2-Tetrachloroethane	1	NA	NA	0.33 J [0.32 J]	1 U	1 U	1 U	1 U
Tetrachloroethene	1	NA	NA	1 U [1 U]	1 U	1.3	1 U	0.96 J
Toluene	600	NA	NA	1 U [1 U]	1 U	0.52 J	1 U	1 U
1,1,1-Trichloroethane	30	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	3	NA	NA	1 U [1 U]	1 U	1 U	1 U	1 U
Trichloroethene	1	NA	NA	0.2 J [0.16 J]	0.29 J	6	0.63 J	69
Trichlorofluoromethane	2000	NA	NA	NA	NA	NA	NA	NA
Vinyl chloride	1	NA	NA	1 U [1 U]	1 U	1.9	1 U	1 U
Xylene (total)	1000	NA	NA	3 U [3 U]	3 U	3 U	3 U	3 U
Total VOCs	-	NA	NA	1.30 J [1.32 J]	0.91 J	209.47 J	1.26 J	108.65 J

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Historic groundwater data are obtained from the 2012 Annual Groundwater Report (Arcadis, 2012)

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TO: J. Levesque cc:

FROM: K. Storne

RE: Evor Phillips Leasing Company (EPLC)Superfund Site, OU3

Site Groundwater Baseline Groundwater Monitoring, Data

Validation Report

FILE: 19726/51308.001.200

DATE: April 16, 2014

This report presents the data validation results performed for environmental samples collected for the Baseline Groundwater Monitoring Event as part of the OU3-Site Groundwater Remedial Action at the Evor Phillips Leasing Company (EPLC) Superfund Site in Old Bridge Township, New Jersey.

SAMPLE AND VALIDATION SUMMARY

The environmental samples collected for this effort consisted of groundwater samples, matrix spike/ matrix spike duplicates, field duplicates, field blanks and trip blanks. Samples were analyzed by Accutest Laboratories of Dayton, New Jersey (Accutest New Jersey).

The laboratory utilized the methods listed in Table 1 for sample analyses.

Table 1. Analytical methods and	references	
Parameter	Methods	Reference
VOCs	USEPA Methods 8000C/5030B/8260B	1
Metals	USEPA Methods 3010A/6010C	2
Sulfate	USEPA Method 9056A/300.0	2/4
TDS	SM20 2540C	3

Note:

VOCs indicates volatile organic compounds.

TDS indicates total dissolved solids.

- United States Environmental Protection Agency (USEPA). 2004. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, 3rd Edition, Update IIIB. Washington D.C.
- 2. USEPA. 2007. Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, 3rd Edition, Update IV. Washington D.C.
- 3. AWWA, APHA, WEF. 1998. Standard Methods for the Examination of Water and Wastewater, 20th Edition. Washington, D.C.
- 4. USEPA. 1993a. Methods for the Determination of Inorganic Substances in Environmental Samples, EPA-600/R-93/100. Washington, D.C.

The laboratory data packages included summary forms for quality control analysis and supportive raw data.

The samples submitted for data review are summarized in the attached Table 2. Table 3 presents the specific data validation approach applied to data generated. Table 4 presents the Laboratory quality assurance/quality control (QA/QC) analyses definitions.

In accordance with the approved RDR/RAWP, full validation was performed on 10 percent of the samples collected and submitted for validation. This consisted of a review of data summary forms and raw analytical data provided in the data packages. Partial validation was performed for the remaining data. Partial data quality review consists of a review of only analytical QC summary forms that are included in the data package. The forms and the information contained on the forms are not evaluated for accuracy or completeness during partial data validation.

The analytical data generated for this investigation were evaluated by O'Brien & Gere using the quality assurance/quality control (QA/QC) criteria established in the methods utilized by the laboratories and the following document:



April 16, 2014 Page 2

• O'Brien & Gere. 2014. Uniform Federal Policy Quality Assurance Project Plan, Operable Unit 3 (OU3)- Site Groundwater Evor Phillips Leasing Company (EPLC) Superfund Site, Old Bridge Township, New Jersey. Edison, New Jersey. (QAPP)

Data affected by excursions from these criteria were qualified using professional judgment and the general validation approach provided in the following validation guideline documents, modified to reflect the requirements of the methods utilized by the laboratories:

- New Jersey Department of Environmental Protection (NJDEP). 2001a. Standard Operating Procedure (SOP) for Analytical Data Validation of Target Analyte List (TAL) Inorganics, SOP No. 5.A.2. Trenton, New Jersey
- NJDEP. 2001b. Standard Operating Procedures for the Quality Assurance Data Validation of Analytical Deliverables TCL- Organics (based on the USEPA SOW OLM04.2 with Revisions), SOP No. 5.A.13. Trenton, New Jersey

The application of these validation guidelines has been modified to reflect the requirements of the methods utilized by the laboratory.

In accordance with the NJDEP guidance, and utilizing professional judgment, the following qualifiers are used in this type of data review:

- "U" Indicates that the analyte was analyzed for, but was not detected.
- "J" Indicates that the result should be considered to be an estimated value. This qualifier is used when the data validation process identifies a deficiency in the data generation process.
- "UJ" Indicates that the sample-specific reporting limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.
- "R" Indicates that the reporting limit or sample result has been determined to be unusable due to a major deficiency in the data generation process. The data should not be used for any qualitative or quantitative purposes.

In addition, in accordance with the NJDEP guidance, the following single word descriptors were added to analyte results if the reported analyte required a quality assurance action.

- Qualify (Q) used when the results of a given analyte in a sample do not meet all QA/QC criteria but the deficiencies are not severe enough to warrant data rejection.
- Negate (N) used when the presence of a given analyte in a sample can be attributed to the laboratory/field introduced contamination.
- Reject (R) used when the results of a given analyte in a sample do not meet all QA/QC criteria so that the
 qualitative presence and/or quantitation of that analyte in the sample cannot be determined with any
 degree of confidence.

Footnotes, based on the NJDEP validation guidance, were applied to each qualifier to define the type of excursion that affected the sample result, resulting in the qualification of the data. Footnotes used in this validation are presented in Table 5 below.



Table 5. Valida	tion Footnote Definitions
Footnote	Type of Excursion
39	The reported concentration is quantitative qualified because the concentration is below the RL.
91	Results are qualified due to calibration excursions.

The following parameters were evaluated, where applicable:

- QAPP compliance
- Documentation completeness
- Chain-of-custody record
- Sample collection
- Sample preservation
- Holding times
- Calibrations (Full validation only)
- Blank analysis
- Matrix spike/ matrix spike duplicate (MS/MSD) analysis
- Laboratory Control Sample (LCS) analysis
- Field duplicate analysis
- Surrogate recovery
- Internal standards performance
- Gas chromatography/mass spectrometry (GC/MS) instrument performance check (Full validation only)
- Inductively coupled plasma (ICP) interference check analysis (Full validation only)
- ICP serial dilution analysis
- Laboratory duplicate analysis
- Target analyte quantitation, identification, and quantitation limits (QLs) (Full validation only)

The following sections of this memorandum present the results of the comparison of the analytical data to the QA/QC criteria specified above.

VOC DATA EVALUATION SUMMARY

The following QA/QC parameters were found to meet method and validation criteria or did not result in additional qualification of sample results:

- QAPP compliance
- Documentation completeness
- Chain-of-custody record
- Sample collection
- Sample preservation
- Holding times
- Blank analysis
- MS/MSD analysis
- LCS analysis
- Field duplicate analysis
- Surrogate recovery
- Internal standards performance



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- GC/MS instrument performance check
- Target analyte identification

Excursions from method or validation criteria and additional observations are described below.

I. Calibration

The results for the following samples were qualified as approximate (UJ, 91) due to minor calibration accuracy excursions:

• Acetone, methyl acetate, 4-methyl-2-pentanone and 1,2-dibromo-3-chloropropane in samples BASE-MW23D-01062014, BASE-MW23S-01062014 and BASE-MW23I-01062014.

II. Target analyte quantitation and detection limits

Sample results with concentrations greater than the method detection limits (MDL) but less than the QL were flagged as approximate (J) by the laboratory. This flag was retained during the validation process to indicate the data is approximate (J, 39).

A dilution was performed for VOC sample BASE-ISCOMW2-01102014 due to high concentrations of target analytes.

METALS, SULFATE and TDS DATA EVALUATION SUMMARY

The following QA/QC parameters were found to meet method and validation criteria or did not result in additional qualification of sample results (where applicable):

- QAPP compliance
- Documentation completeness
- Chain-of-custody record
- Sample collection
- Sample preservation
- Holding times
- Calibrations
- Blank analysis
- MS/MSD analysis
- LCS analysis
- Field duplicate analysis
- ICP interference check analysis
- ICP serial dilution analysis
- Laboratory duplicate analysis

Excursions from method or validation criteria were not identified during the validation process. Additional observations are described below.

I. Target analyte quantitation and QLs

Results for metals and inorganics were reported to the QL concentration.



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Dilutions were performed for samples BASE-ISCOMW8-01092014 and BASE-ISCOMW2-01102014 for metals analyses due to high concentrations of target analytes.

DATA USABILITY

The data from the samples on Table 2 were evaluated based on QA/QC criteria established by the methods listed in Table 1 and the data validation approach as described in Table 3.

Major deficiencies in the data generation process would have resulted in data points being rejected, indicating that the data are considered unusable for either quantitative or qualitative purposes. Major deficiencies were not identified during the validation process. Minor deficiencies in the data generation process resulted in sample data being characterized as approximate.

A discussion of the data quality with regard to the data usability parameters follows:

<u>Precision</u>: Data were not rejected for precision excursions.

<u>Sensitivity</u>: Sensitivity is established by QLs, which represent measurable concentrations of analytes which can be determined with a designated level of confidence, that meet project requirements. Dilutions were performed for analyses due to elevated concentrations of target analytes in the samples.

Accuracy: Data were not rejected for accuracy excursions.

Representativeness: Data were not rejected for representativeness excursions.

<u>Comparability</u>: Data usability with respect to comparability is 100 percent, as standardized analytical methods, QLs, reference materials, and data deliverables were used throughout the data generation process for this project.

<u>Completeness</u>: For the samples submitted for data validation, overall data usability with respect to completeness 100 percent for the data, considering the complete data set; therefore, the usability met the QAPP requirement of usable for qualitative and quantitative purposes.



Table 2. Sample Cross Reference Table

Samples collected and submitted for data validation

Samples collected a	and Submitted for d	ata validation	1		
			Laboratory		
,	Date Collected	Client Identification	Identification	Matrix	Analysis Requested
Accutest	1/6/2014	BASE-MW23D-01062014	JB57131-1	Groundwater	VOCs
Accutest	1/6/2014	BASE-MW23S-01062014	JB57131-2	Groundwater	VOCs
Accutest	1/6/2014	BASE-MW23I-01062014	JB57131-3	Groundwater	VOCs
Accutest	1/6/2014	BASE-TB-01062014	JB57131-4	Aqueous	VOCs
Accutest	1/9/2014	BASE-ISCOMW1-01092014, MS/MSD	JB57365-1	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/9/2014	BASE-ISCOMW1-01092014, MS/MSD	JB57365-1F	Groundwater	Dissolved Metals
Accutest	1/9/2014	BASE-PZ1S-01092014	JB57365-2	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/9/2014	BASE-PZ1S-01092014	JB57365-2F	Groundwater	Dissolved Metals
Accutest	1/9/2014	BASE-ISCOMW5-01092014	JB57365-3	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/9/2014	BASE-ISCOMW5-01092014	JB57365-3F	Groundwater	Dissolved Metals
Accutest	1/9/2014	BASE-ISCOMW6-01092014	JB57365-4	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/9/2014	BASE-ISCOMW6-01092014	JB57365-4F	Groundwater	Dissolved Metals
Accutest	1/9/2014	BASE-ISCOMW8-01092014	JB57365-5	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/9/2014	BASE-ISCOMW8-01092014	JB57365-5F	Groundwater	Dissolved Metals
Accutest	1/9/2014	BASE-IW4S-01092014	JB57365-6	Groundwater	VOCs
Accutest	1/10/2014	BASE-ISCOMW2-01102014	JB57365-7	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-ISCOMW2-01102014	JB57365-7F	Groundwater	Dissolved Metals
Accutest	1/9/2014	BASE-IW1BT2-01092014	JB57365-8	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/9/2014	BASE-IW1812-01092014 BASE-IW18T2-01092014	JB57365-8F	Groundwater	Dissolved Metals
Accutest	1/9/2014	BASE-01092014-EB	JB57365-9	Aqueous	VOCs, Metals, Sulfate, TDS
	1/9/2014	BASE-01092014-EB BASE-01092014-EB	JB57365-9 JB57365-9F	Aqueous	Dissolved Metals
Accutest				<u> </u>	
Accutest	1/9/2014	BASE-ISCOMW3-01092014	JB57365-10	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/9/2014	BASE-ISCOMW3-01092014	JB57365-10F	Groundwater	Dissolved Metals
Accutest	1/9/2014	BASE-01092014-DUP[BASE-ISCOMW3-01092014]	JB57365-11	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/9/2014	BASE-01092014-DUP[BASE-ISCOMW3-01092014]	JB57365-11F	Groundwater	Dissolved Metals
Accutest	1/10/2014	BASE-IW1DR1-01102014	JB57365-12	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-IW1DR1-01102014	JB57365-12F	Groundwater	Dissolved Metals
Accutest	1/10/2014	BASE-MW10S-01102014	JB57365-13	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-MW10S-01102014	JB57365-13F	Groundwater	Dissolved Metals
Accutest	1/10/2014	BASE-MW14SD-01102014	JB57365-14	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-MW14SD-01102014	JB57365-14F	Groundwater	Dissolved Metals
Accutest	1/10/2014	BASE-MW14S-01102014	JB57365-15	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-MW14S-01102014	JB57365-15F	Groundwater	Dissolved Metals
Accutest	1/10/2014	BASE-MW11I-01102014	JB57365-16	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-MW11I-01102014	JB57365-16F	Groundwater	Dissolved Metals
Accutest	1/10/2014	BASE-MW5I-01102014	JB57365-17	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-MW5I-01102014	JB57365-17F	Groundwater	Dissolved Metals
Accutest	1/10/2014	BASE-ISCOMW7-01102014	JB57365-18	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-ISCOMW7-01102014	JB57365-18F	Groundwater	Dissolved Metals
Accutest	1/10/2014	BASE-01102014-EB	JB57365-19	Agueous	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-01102014-EB	JB57365-19F	Aqueous	Dissolved Metals
Accutest	1/10/2014	BASE-ISCOMW9-01102014	JB57365-20	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	1/10/2014	BASE-ISCOMW9-01102014	JB57365-20F	Groundwater	Dissolved Metals
Accutest	1/10/2014	BASE-01102014-TB	JB57365-21	Aqueous	VOCs
Accutest	1/13/2014	BASE-MW24-01132014	JB57510-1	Groundwater	VOCs
Accutest	1/13/2014	BASE-MW6S-01132014 BASE-MW9I-01132014, MS/MSD	JB57510-2	Groundwater Groundwater	VOCs
Accutest	1/13/2014	i i	JB57510-3		VOCs
Accutest	1/13/2014	BASE-01132014-DUP[BASE-MW24-01132014]	JB57510-4	Groundwater	VOCs
Accutest	1/13/2014	BASE-WCC1M-01132014	JB57510-5	Groundwater	VOCs
Accutest	1/13/2014	BASE-WCC1S-01132014	JB57510-6	Groundwater	VOCs
Accutest	1/13/2014	BASE-MW19S-01132014	JB57510-7	Groundwater	VOCs
Accutest	1/13/2014	BASE-MW28-01132014	JB57510-8	Groundwater	VOCs
Accutest	1/13/2014	BASE-MW15D-01132014	JB57510-9	Groundwater	VOCs
Accutest	1/13/2014	BASE-WCC3M-01132014	JB57510-10	Groundwater	VOCs
Accutest	1/13/2014	BASE-01132014-EB	JB57510-11	Aqueous	VOCs
Accutest	1/13/2014	BASE-01132014-TB	JB57510-12	Aqueous	VOCs
Accutest	2/3/2014	BASE-ISCOMW4-02032014	JB59106-1	Groundwater	VOCs, Metals, Sulfate, TDS
Accutest	2/3/2014	BASE-ISCOMW4-02032014	JB59106-1F	Groundwater	Dissolved Metals
Accutest	2/3/2014	BASE-02032014-EB	JB59106-2	Aqueous	VOCs, Metals, Sulfate, TDS
Accutest	2/3/2014	BASE-02032014-EB	JB59106-2F	Aqueous	Dissolved Metals
Accutest	2/3/2014	BASE-EW3-02032014	JB59106-3	Groundwater	VOCs
Accutest	2/3/2014	BASE-02032014-TB	JB59106-4	Aqueous	VOCs
	2, 3, 2014	D. O.C. 0.2002-014-110	1223100.4	/ iqueous	1,000
Note:					

Accutest indicates Accutest Laboratories of Dayton, New Jersey.

VOCs indicates volatile organic compounds.

TDS indicates total dissolved solids.

MS/MSD indicates matrix spike/matrix spike duplicate.

DUP indicates field duplicate.

The sample identification utilized for field duplicate is shown in brackets.

TB indicates trip blank.

FB indicates field blank.

Table 3 - O'Brien & Gere data validation approach using NJDEP data validation guidelines

General Validation Approach

Data evaluation is based on QA/QC criteria established the methods utilized by the laboratory and quality plans developed for the project.

The NJDEP data validation guidance applies to data generated using USEPA CLP methods. This project was not analyzed using CLP methods. Therefore, data affected by excursions from criteria presented in the methods and quality plan are qualified using professional judgment with some consideration of the general guidance provided in the following documents:

- New Jersey Department of Environmental Protection (NJDEP). 2001a. Standard Operating Procedures for the Quality
 Assurance Data Validation of Analytical Deliverables TCL- Organics (based on the USEPA SOW OLM04.2 with Revisions),
 SOP No. 5.A.13. Trenton, New Jersey; and
- NJDEP. 2001b. Standard Operating Procedure (SOP) for Analytical Data Validation of Target Analyte List (TAL) –
 Inorganics, SOP No. 5.A.2. Trenton, New Jersey.

The following qualifiers are applied to data:

""U" Indicates that the analyte was analyzed for, but was not detected.

"J" Indicates that the result should be considered to be an estimated value. This qualifier is used when the data validation process identifies a deficiency in the data generation process.

"UJ" Indicates that the sample-specific reporting limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.

"R" Indicates that the reporting limit or sample result has been determined to be unusable due to a major deficiency in the data generation process. The data should not be used for any qualitative or quantitative purposes.

In addition, in accordance with the NJDEP guidance, the following single word descriptors were added to analyte results if the reported analyte required a quality assurance action.

- Qualify (Q) used when the results of a given analyte in a sample do not meet all QA/QC criteria but the deficiencies are not severe enough to warrant data rejection.
- Negate (N) used when the presence of a given analyte in a sample can be attributed to the laboratory/field introduced contamination.
- Reject (R) used when the results of a given analyte in a sample do not meet all QA/QC criteria so that the qualitative
 presence and/or quantitation of that analyte in the sample cannot be determined with any degree of confidence.

Footnotes are applied to each qualifier to define the type of excursion that affected the sample result, resulting in the qualification of the data, as listed on this table.

Data are evaluated using the QA/QC criteria (including holding times and calibration) established in the applicable Quality Assurance Project Plan (QAPP), analytical methods and laboratory established control limits. Since the NJDEP validation guidelines apply to data generated using CLP methods, the application of these validation guidelines is modified to reflect method requirements, where applicable, since non-CLP methods are used in the analysis of samples.

A full QA/QC review is performed for 10 percent of the aqueous and solid samples, including a review of data summary forms and raw analytical data that were provided by the laboratory in the data package documentation. Partial review is performed for the remaining environmental samples submitted for data validation for this sampling event. Partial review consists of a review of the data summary forms. During the partial validation, only summary QA/QC forms are evaluated. The forms and the information contained on the forms are not evaluated for accuracy or completeness during the partial validation process.

The validation approach taken by O'Brien & Gere is a conservative one; qualifiers are applied to sample data to indicate both major and minor excursions. In this way, data associated with any type of excursion are identified to the data user. Major excursions will result in data being rejected, indicating that the data are considered unusable for either quantitative or qualitative purposes. Minor excursions will result in sample data being qualified as approximate that are otherwise usable for quantitative or qualitative purposes.

Excursions are subdivided into excursions that are within the laboratory's control and those that are out of the laboratory's control. Excursions involving laboratory control sample recovery, calibration response, method blank excursions, low or high spike recovery due to inaccurate spiking solutions or poor instrument response, holding times, interpretation errors, and quantitation errors are within the control of the laboratory. Excursions resulting from matrix spike recovery, serial dilution recovery, surrogate, and internal standard performance due to matrix interference from the matrix of the samples are examples of those excursions that are not within the laboratory's control if the laboratory has followed proper method control procedures, including performing appropriate cleanup techniques.

Parameter Type

Approach in Applying Data Validation Qualifiers

Sample collection informationCooler Temperature

Results for samples submitted for organic and inorganic analyses impacted by cooler temperatures of greater than 10° C are noted in the report.* Qualifiers are not applied to data.

Sample collection information-Percent Solids

Results for samples submitted for organic and inorganic analyses that are impacted by percent solids of 50 percent are noted in the report.* Qualifiers are not applied to data.

VOCs by USEPA Method 8260B Calibration Evaluation VOC target analytes are evaluated using the criteria of 15%RSD or correlation coefficient criteria of 0.990 for initial calibration curves. Calibration verifications are evaluated using a criterion of 20%D for all target compounds. Initial calibrations and calibration verifications were also evaluated using the criterion of a RF value of greater than or equal to a value of 0.01 for ketones and 0.05 for the remaining target analytes. If analyzed, the second-source standard (ICV) is evaluated using laboratory control limits or 70% to 130% recovery.



Table 3 - O'Brien & Ger	e data validation approach using NJDEP data validation guidelines
VOCs by USEPA	VOC target analytes are evaluated using the criteria of 20%RSD or correlation coefficient criteria of 0.990 for initial calibration
Method 524.2	curves. Calibration verifications are evaluated using a criterion of 30%D for all target compounds. Initial calibrations and
Calibration Evaluation	calibration verifications were also evaluated using the criterion of a RF value of greater than or equal to a value of 0.05. If
	analyzed, the second-source standard (ICV) is evaluated using laboratory control limits or 70% to 130% recovery.
VOCs by USEPA	VOC target analytes are evaluated using the criteria of 35 percent relative standard deviation (%RSD) or
Method 624	correlation coefficient criteria of 0.990 for initial calibration curves. Calibration verifications are evaluated using
Calibration	criteria presented in Table 5 of USEPA Method 624 and 50 percent difference (%D) for the remaining target
Evaluation	analytes not listed in the method. Initial calibrations and calibration verifications are also evaluated using a
210100000	response factor (RF) criteria of greater than or equal to 0.05 for target analytes. A minimum of a RF pf 0.01 is
	required for ketones and poor-purging analytes. If analyzed, the second-source standard or low standard is
	evaluated using a 30% recovery or the laboratory control limits.
SVOCs by USEPA	SVOC target analytes are evaluated using the criteria of 15 %RSD or correlation coefficient criteria of 0.990 for initial
SVOCs by USEPA Method 8270C	calibration curves. Calibration verifications are evaluated using a criterion of 20%D for all target compounds. Initial
Calibration Evaluation	calibrations and calibration verifications were also evaluated using the criterion of a RF value of greater than or equal to a
Calibration Evaluation	value of 0.05 for the target analytes. If analyzed, the second-source standard (ICV) is evaluated using laboratory control limits
	or 70% to 130% recovery.
	Due to any relative standard deviation (RSD) calibration excursions, detected results for analytes in samples associated with
	the calibration are qualified as approximate (J). Non-detected results associated with RSD excursions may be qualified as
	approximate (UJ) based on professional judgment.
Calibuation Astions for	If the RSD calibration excursion is greater than 90, detected results for analytes in samples associated with the calibration are
Calibration Actions for VOCs (8260B) and	qualified as approximate (J) and non-detected results may be rejected (R), applying professional judgment.
SVOCs (8270C)	Due to any %D calibration verification excursions, detected and non-detected results for analytes in samples associated with
37003 (82700)	the calibration are qualified as approximate (J, UJ).
	If the %D calibration excursion is greater than 90, detected results for analytes in samples associated with the calibration are
	qualified as approximate (J) and non-detected results may be rejected (R), applying professional judgment.
	For response factor excursions, detected results are qualified as approximate (J) and non-detected results are rejected (R).
	For initial calibration verifications (ICV) excursions, detected and non-detected results for analytes in samples associated with
	the calibration are qualified as approximate (J, UJ). The response direction and detection of target analytes in associated
PCBs by USEPA	sample may be considered in applying qualifiers. PCB target analytes are evaluated using the criteria of 20 %RSD or correlation coefficient of 0.990 for initial calibration curves.
Method 8082	Calibration verifications are evaluated using a criterion of 15 %D for target analytes.
Calibration Evaluation	ICV recoveries are evaluated using laboratory control limits if available or 70 to 130%.
	Pesticide target analytes are evaluated using the criteria of 20 %RSD or correlation coefficient of 0.990 for initial calibration
Pesticides by USEPA	curves.
Method 8081A	Calibration verifications are evaluated using a criterion of 20 %D for the target analytes.
Calibration Evaluation	ICV recoveries are evaluated using laboratory control limits if available or 70 to 130%.
Herbicides by USEPA	Herbicide target analytes are evaluated using the criteria of 20 %RSD or correlation coefficient of 0.990 for initial calibration
Method 8151A	curves.
Calibration Evaluation	Calibration verifications are evaluated using a criterion of 20 %D for the target analytes.
Calibration Evaluation	ICV recoveries are evaluated using laboratory control limits if available or 70 to 130%.
	Due to any relative standard deviation (RSD) calibration excursions, detected results for analytes in samples associated with
	the calibration are qualified as approximate (J). Non-detected results associated with RSD excursions may be qualified as
Calibration Actions for	approximate (UJ) based on professional judgment.
PCB, Pesticides and	Due to any %D calibration verification excursions, detected and non-detected results for analytes in samples associated with
Herbicides GC	the calibration are qualified as approximate (J, UJ). For initial calibration verifications (ICV) excursions, detected and non-detected results for analytes in samples associated with
analyses	the calibration are qualified as approximate (J, UJ). The response direction and detection of target analytes in associated
	sample may be considered in applying qualifiers.
Calibration Data- GC	Data are evaluated using the criteria of 20%RSD for initial calibrations, or correlation coefficient of 0.990 for calibration curves,
by USEPA Method	and 20%D for the calibration verifications. Results are qualified for primary column calibration excursions. The second-source
8011	standard (ICV) is evaluated using laboratory control limits or 70% to 130% recovery.
Organic Multi-results	When two results are reported, due to re-preparation or for dilution analyses, both sets of results are evaluated during the
	validation process. Based on the evaluation of the associated quality control data, the results reflecting the higher quality data
	are reported.



Table 2 O'Prion 9 Com	a data validation approach using NIDED data validation quidalines
General Organic	e data validation approach using NJDEP data validation guidelines
Surrogate, MS/MSD,	Laboratory established control limits are used to assess duplicate, surrogate, MS/MSD, and LCS data.
LCS, Duplicate Data	In the case that excursions are identified in more than one quality control sample of the same matrix within one sample delivery group, samples are batched according to sample preparation or analysis date and qualified accordingly.
	For surrogate recoveries are not within laboratory control limits:
	If two or more surrogate recoveries are outside of laboratory control limits for SVOC analysis, results are rejected (R, 81) unless matrix interferences are confirmed by re-extraction and reanalysis.
	If one or more surrogate recoveries are not within laboratory control limits for PCB, results are qualified as UJ, J, 81B).
	If LCS percent recoveries are less than laboratory control limits but greater than ten percent, non-detected and detected results are qualified as approximate (UJ, J, 88) to indicate minor excursions.
	If LCS percent recoveries are greater than laboratory control limits, detected results are qualified as approximate (J, 88) to indicate minor excursions.
	If LCS percent recoveries are outside of laboratory control limits and less than ten percent, detected results are qualified as approximate (J, 88) and non-detected results are qualified as rejected (R, 88A) to indicate major excursions.
	If RPDs for MSDs or duplicates are outside of laboratory control limits, detected results are qualified as approximate (J, 89A) to indicate minor excursions.
Organic MS/MSD Data	Qualification of organic data for MS/MSD analyses is performed only when both MS and MSD percent recoveries are outside of laboratory control limits with zero percent recovery.
	Organic data are rejected (R, 87) to indicate major excursions in the case that both MS/MSD recoveries are zero.
Sample dilution Data	Qualification of data is not performed if MS/MSD or surrogate recoveries are outside of laboratory control limits due to sample dilution.
MS/MSD and Field Duplicate Data – Organic Data	Qualification of data associated with MS/MSD or field duplicate excursions is limited to the un-spiked sample or the field duplicate pair, respectively.
Field Duplicate Data	Field duplicate data are evaluated against relative percent difference (RPD) criteria of less than 50 percent for aqueous samples and less than 100 percent for soils when results are greater than five times the QL. When sample results for field duplicate pairs are less than five times the QL the data are evaluated using control limits of plus or minus two times the QL for soils. If RPDs for field duplicates are outside of laboratory control limits, detected and non-detected results are qualified as approximate (UJ, J, 90) to indicate minor excursions.
Internal Standard - Organic Data	Internal standard recoveries are evaluated using control limits of within 50% of the lower standard area and up to 100% of the upper standard area of the associated calibration verification standard.
	Sample results are qualified as approximate (UJ, J, 50) if one internal standard does not meet criteria.
	Detected sample results are qualified as approximate (J, 51) if two or more internal standards do not meet criteria.
	Non-detected sample results are rejected (R, 51) if two or more internal standards do not meet criteria.
Internal Standard/Surrogate - Organic Data- Drinking Water methods	Internal standard recoveries are evaluated using method control limits. Monitor the integrated areas of the quantitation ions of the internal standards and surrogates in all samples, continuing calibration checks, and blanks. These should remain reasonably constant over time. An abrupt change may indicate a matrix effect or an instrument problem. If a cryogenic interface is utilized, it may indicate an inefficient transfer from the trap to the column. These samples must be reanalyzed or a laboratory fortified duplicate sample analyzed to test for matrix effect. A drift of more than 50% in any area is indicative of a loss in sensitivity, and the problem must be found and corrected.
	CCV- Determine that the absolute areas of the quantitation ions of the internal standard and surrogates have not decreased by more than 30% from the areas measured in the most recent continuing calibration check, or by more than 50% from the areas measured during initial calibration. If these areas have decreased by more than these amounts, adjustments must be made to restore system sensitivity.
Evaluation of Internal	Internal standard areas of samples are evaluated using the validation control limit of 70 to 130 percent recovery when compared to the calibration verification associated with the samples.
Standards for samples (VOCs for USEPA	Sample results are qualified as approximate (UJ, J, 50) if one internal standard does not meet criteria.
Method 524.2)	Detected sample results are qualified as approximate (J, 51) if two or more internal standards do not meet criteria.
	Non-detected sample results are rejected (R, 51) if two or more internal standards do not meet criteria.



Table 3 - O'Brien & (Gere data validation approach using NJDEP data validation guidelines
	Internal standard areas of CCVs are evaluated using the validation control limit of 50 to 100 percent recovery when compared
Evaluation of CCVs	to the initial calibration
Evaluation of CCVs (VOCs for USEPA	Sample results are qualified as approximate (UJ, J, 50) if one internal standard does not meet criteria.
Method 524.2)	Detected sample results are qualified as approximate (J, 51) if two or more internal standards do not meet criteria.
,	
Evaluation of Initial	Non-detected sample results are rejected (R, 51) if two or more internal standards do not meet criteria.
(ICV) and Calibration	
Verification (CCV) fo	
Metals by	Mercury is evaluated using the criteria for ICV of 90% to 110% of the expected value and 80% to 120% of the expected value
6010B/6020A,	for the CCV.
Mercury by	Total Cyanide is evaluated using the criteria for ICV and CCV of 85% to 115% of the expected value.
7470A/7471B, and	For analyses utilizing a calibration curve, the correlation coefficient for the first or second order curve must be≥ 0.995.
Total Cyanide by	
9012B	ICP-MS data is evaluated using resolution of mass calibration of within 0.1 μ and the %RSD of less than 15%.
Performance Evaluation for ICP-M	
by 6020A	5 Resolution must be less than 0.9amu of full width at 10% of peak fielght.
Evaluation of Initial	
(ICV) and Calibration	
Verification (CCV) fo	Metals are evaluated using the criteria for ICV and CCV of 95% to 105% for EPA 200.7 and 90% to 110% for EPA 200.8 and
Metals by EPA metho	
200.7/200.8 and	For analyses utilizing a calibration curve, the correlation coefficient for the first or second order curve must be ≥ 0.995.
Anions by Method	
300.0 Evaluation of Interna	Internal standard recoveries are evaluated using control limits of percent relative intensity (%RI) from 60% to 125% of the
Standards for ICP-MS	- ' ' ' '
by 200.8	response in the constraint static.
Evaluation of Interna	Internal standard recoveries are evaluated using control limits of percent relative intensity (%RI) from 60% to 125% of the
Standards for ICP-MS	response in the calibration blank.
by 6020A	The intensity of any internal standard must be >30% or <120% of the intensity of the internal standard in the initial calibration
	standard.
	The intensity of the internal standard of the CCB and CCV must agree within ±20% of the intensity of the internal standard in
Metal and Inorganio	the ICV. Qualification of sample results associated with MS/MSD, laboratory duplicate and field duplicate excursions is performed on
MS/MSD,	samples for the same matrix, within the same preparation batch, within the same SDG group.
Laboratory/Field	
Duplicate, Serial	
Dilution	
Validation Footnotes	
Footnote	Type of Excursion
1	The value reported is less than or equal to three (3) times the value in the method blank/preparation blank. It is the policy of NJDEP-DPFSR to negate the reported value due to probable foreign contamination unrelated to the actual sample. The end-user, however, is alerted that a reportable quantity of the analyte/compound was detected. The B qualifier must be reported.
2	The value reported is greater than three (3) times but less than or equal to 10 times the value in the method blank/preparation blank
	and is considered "real". However, the reported value must be quantitatively qualified "J" due to the method blank contamination. The
2	"B" qualifier alerts the end-user to the presence of this analyte/compound in the method blank.
3	The value reported is less than or equal to three (3) times the value in the trip/field blank. It is the policy of NJDEP-DPFSR to negate the reported value as due to probable foreign contamination unrelated to the actual sample. The end-user, however, is alerted that a
	reported value as due to probable foreign contamination unrelated to the actual sample. The end-user, nowever, is alerted that a reportable quantity of the analyte/compound was detected.
4	The value reported is greater than three (3) times the value in the trip/field blank but less than or equal to 10 times the value in the
	blank and is considered "real". However, the reported value must be quantitatively qualified "J" due to trip/field blank contamination.
4A	The result was qualified due to negative drift.
4B	The result was qualified as "U" due to blank contamination.
5	The concentration reported by the laboratory is incorrectly calculated.
6	The laboratory failed to report the presence of the analyte in the sample.
7	The reported metal value was qualified because the Initial/Continuing Calibration Standard was not within the recovery range.
8	No CRDL Standard for AA or ICP analysis was performed. Therefore, the analyte affected was rejected.
9	The reported concentration was quantitatively qualified because the concentration was below the CRDL but greater than the MDL. The concentration is considered estimated since the value obtained is at the low end of the instrument performance.
9A	IDLs are greater than the CRDLs.



Table 3 - O'Brie	n & Gere data validation approach using NJDEP data validation guidelines	
10	The reported metal value was qualified because the ICP Interference Check Sample was outside the recovery range (80-120 percent).	
11	The non-detect metal value was qualified "UJ" because the ICP Interference Check Sample was within the range of 50 and 79%; hence possibility of false negatives exists.	
12	This non-detected metal analyte had Laboratory Control Sample recovery that fell within the range of 70-79%. The end-user should be aware of the possibility of false negatives; therefore, this analyte is flagged as estimated (UJ).	
13	The reported metal value was qualified because the Laboratory Control Sample recovery fell within the range of 70-79 %. The encuser should be aware of results that may be biased low.	
14	The reported metal value was qualified because the Laboratory Control Sample recovery was greater than 120% but less than or equa to 130%. The end-user should be aware of results that may be biased high.	
15	The metal analyte is rejected because the Laboratory Control Sample recovery was less than 70% or greater than 130%.	
16	In the Duplicate Sample Analysis for metals, the analyte fell outside the control limits of +20 percent or + CRDL. Therefore, result for the metal was qualified.	
17	This analyte was rejected because the laboratory performed the Duplicate Analysis on a field blank.	
18	The reported metal value was qualified because the spike recovery was greater than 125 percent but less than or equal to 200%.	
18A	The reported metal was qualified because both the spike recovery and matrix spike duplicate recovery were outside of the validation control limits.	
19	The reported metal value was qualified because the spike recovery was between 25 and 74 percent.	
20	The reported metal value was qualified because the spike recovery was less than 25 percent. The reported value actually indicated the minimum concentration at which the metal was present.	
21	The non-detected metal value was qualified (UJ) because the spike recovery was between 25 and 74 percent. The possibility of a false negative exists.	
22	The non-detected metal value was rejected because the spike recovery was less than 25 percent.	
23	The reported metal value was rejected because the laboratory used a field blank for the Sample Spike Analysis.	
24	There was no Post-Digestion Spike Sample Recovery analysis performed. Therefore, the analyte was rejected.	
25	The reported metal value was qualified because the Serial Dilution was not within ten percent of sample concentration.	
26	The reported metal value was rejected because the laboratory used a field blank for the Serial Dilution analysis or the post-digest spike.	
27	This metal analyte is rejected because the preparation blank concentration of this analyte is greater than the CRDL and the reported sample concentration is less than ten (10) times the preparation blank concentration.	
28	The laboratory incorrectly transcribed the raw data onto the Inorganic Analysis Data Sheet form or there are data package issues.	
28A	Verification of instrument parameters was performed outside of the required frequency.	
28B	A percent solids issue was detected.	
29	The reported metal analyte was rejected because the CRDL standard % Recovery fell less than 30% or was greater than 175%, or another severe CRDL deficiency was detected.	
30	The non-detected metal value was rejected because the post-digestion spike recovery was less than 25 percent.	
30A	The metal value was qualified since the post-digestion spike recovery was exceeded.	
31	The reported metal analyte was rejected because the associated Continuing Calibration Blank result was greater than the CRDL.	
32	The reported metal analyte was rejected because this sample is not associated with a Laboratory Control Sample or ICB or CCB.	
33	The laboratory made a transcription error.	
33A	A methods comparison issue was detected.	
34	The laboratory used an incorrectly associated Preparation Blank.	
	The second to be a first and be a second that be because of the state of the state of the second and the state of the stat	
35	This analyte is rejected because the laboratory exceeded the holding time for analysis or extraction.	
35A	Result was qualified due to a holding time excursion.	
35A 36	Result was qualified due to a holding time excursion. This metal value was qualified because the CRDL standard was not within the recovery range.	
35A 36 37	Result was qualified due to a holding time excursion. This metal value was qualified because the CRDL standard was not within the recovery range. The reported concentration is quantitatively qualified due to calibration deficiencies.	
35A 36 37 38	Result was qualified due to a holding time excursion. This metal value was qualified because the CRDL standard was not within the recovery range. The reported concentration is quantitatively qualified due to calibration deficiencies. The reported concentration is quantitatively qualified due to surrogate recovery outliers.	
35A 36 37 38 39	Result was qualified due to a holding time excursion. This metal value was qualified because the CRDL standard was not within the recovery range. The reported concentration is quantitatively qualified due to calibration deficiencies. The reported concentration is quantitatively qualified due to surrogate recovery outliers. The reported concentration is quantitative qualified because the concentration is below the RL.	
35A 36 37 38	Result was qualified due to a holding time excursion. This metal value was qualified because the CRDL standard was not within the recovery range. The reported concentration is quantitatively qualified due to calibration deficiencies. The reported concentration is quantitatively qualified due to surrogate recovery outliers. The reported concentration is quantitative qualified because the concentration is below the RL. The sample holding time to re-extraction and/or reanalysis was exceeded. All positive results including the tentatively identified compounds are highly qualified.	
35A 36 37 38 39	Result was qualified due to a holding time excursion. This metal value was qualified because the CRDL standard was not within the recovery range. The reported concentration is quantitatively qualified due to calibration deficiencies. The reported concentration is quantitatively qualified due to surrogate recovery outliers. The reported concentration is quantitative qualified because the concentration is below the RL. The sample holding time to re-extraction and/or reanalysis was exceeded. All positive results including the tentatively identified compounds are highly qualified. The mass spectral identification has not been confirmed and the identification of this compound has been rejected. This compound	
35A 36 37 38 39 40	Result was qualified due to a holding time excursion. This metal value was qualified because the CRDL standard was not within the recovery range. The reported concentration is quantitatively qualified due to calibration deficiencies. The reported concentration is quantitatively qualified due to surrogate recovery outliers. The reported concentration is quantitative qualified because the concentration is below the RL. The sample holding time to re-extraction and/or reanalysis was exceeded. All positive results including the tentatively identified compounds are highly qualified. The mass spectral identification has not been confirmed and the identification of this compound has been rejected. This compound should now be considered an unknown and the reported concentration is considered an estimated value. The percent Difference of the calculated values on both columns is greater than 100% and less than 999.9 %. This value is significantly greater than the 25 % limits established by the USEPA-Contract Laboratory Program. The extreme variation between the values from the two columns is apparently due to instrumentation problems and/or matrix interference. Therefore, the reported concentrations cannot	
35A 36 37 38 39 40	Result was qualified due to a holding time excursion. This metal value was qualified because the CRDL standard was not within the recovery range. The reported concentration is quantitatively qualified due to calibration deficiencies. The reported concentration is quantitatively qualified due to surrogate recovery outliers. The reported concentration is quantitative qualified because the concentration is below the RL. The sample holding time to re-extraction and/or reanalysis was exceeded. All positive results including the tentatively identified compounds are highly qualified. The mass spectral identification has not been confirmed and the identification of this compound has been rejected. This compound	



Table 3 - O'Brien	& Gere data validation approach using NJDEP data validation guidelines	
42C	The percent difference from both columns was greater than 70%.	
42D	The percent difference from both columns was greater than 100% without evidence of matrix interferences being present. The results are rejected (R).	
42E	Results were reported at a concentration that was less than the PQL with a %D greater than 50 percent. The PQL is reported an qualified as non-detected (U).	
43	The peak retention times of the Aroclors or pesticides detected in the samples are outside of the retention time window established in the initial calibration. The identification of the Aroclors or pesticides cannot be verified due to the retention time shift outside of the windows. Retention time shifts are evident in all of the continuing calibration standards and the Performance Evaluation Mixtures, therefore the usability of the data is questionable.	
44	The laboratory didn't provide the mass spectral proof for the analyte although the quantitation report indicates the presence of the analyte. The presence of this analyte in the sample is considered tentative.	
45	The non target compound is qualified "J" and considered an estimated value because relative response factors are not determined for non-target compounds.	
46	The laboratory's call on the non target compound did not match the mass spectra of the compound at the approximate scan number in the blank. The laboratory call is incorrect.	
47	The laboratory failed to report this analyte on the Organic Analysis Data Sheet (OADS) Form even though the TIC, quantitation report and library search indicates a hit for the analyte.	
48	The laboratory reported this analyte in the QADS form. However, this analyte was negated in the quantitation report. QA reviewer agrees the mass spectrum is not a good match and therefore, negates the presence of this analyte in the sample.	
49	No library search was submitted for this unknown.	
49A	Results were rejected since correct internal standard was not used.	
50	One internal standard area in the sample did not meet the QC criteria. Therefore, all compound results using this internal standard for quantitation are quantitatively estimated. (UJ, J)	
51 (See 84)	Two or more internal standard areas in the sample did not meet the QC criteria with recoveries of greater than 25%. The detected results for the entire fraction for that sample are qualified as approximate (J). The non-detected results are rejected (R).	
52	The RIC in the raw data indicates a non-target(s) is present. The lab failed to report and provide library search(s) for the non-target(s).	
53	The laboratory did not quantify the pesticides present in the sample. The pesticide was confirmed on a second column. Quantitation of the peaks revealed that the value is above the CRQL.	
54	The lab failed to report this analyte although it was found in both columns and is within the retention times of both columns for the analyte.	
55	The retention time window for this analyte overlaps with the retention time window of another analyte. The identity is indistinguishabl and therefore tentative.	
56	The laboratory reported concentration does not agree with QA reviewer's calculated concentration.	
57	The compound exceeded the calibration range of the instrument and is indicated with the "E" qualifier.	
58	The compound is a suspected Aldol condensation product and is flagged with the "A" qualifier.	
59	The laboratory was required to dilute the samples to bring the peaks onto scale.	
60	This sample was diluted prior to analysis. The value reported prior to the dilution correction is less than three (3) times the value in the method blank. It is the policy of NJDEP-DPFSR to negate the reported value due to probable foreign laboratory contamination unrelated to the actual sample. The end-user is alerted that a reportable quantity of the analyte was detected.	
61	This non-target compound was detected as a target compound in another analytical fraction. Therefore, the presence of this compound as a non-target analyte is negated.	
62	This sample was diluted prior to analysis. The value reported prior to the dilution correction is greater than three (3) times the value in the method blank and is considered "real". However, the reported value must be quantitatively qualified "J" due to method blank contamination. The "B" qualifier alerts the end-user to the presence of this analyte in the method blank.	
62A	Results are rejected due to a severe blank analysis excursion.	
62B	Results are qualified due to a blank analysis excursion.	
63	The results are rejected because the initial calibration, continuing calibration or internal standard was not performed using the proper sequence, concentration, matrix, or internal standards.	
63A	Results are rejected due to a severe pesticide/Aroclor analysis issue.	
63B	Results are negated due to a blank analysis excursion.	
63C	Results are qualified due to a pesticide/Aroclor analysis issue.	
64	The results are rejected because the D of the single component pesticide and/or surrogate in the PEM(s) is greater than 25%.	
64A	Results are rejected due to a major calibration excursion.	
65	The results are rejected because of resolution, scaling, or retention time issues.	
65A	Results are qualified due to scaling, or calibration issues.	
66	The result is rejected due to retention time deficiencies.	
67	The result is qualified because the DDT and/or Endrin breakdown was greater than 20%.	



Table 3 - O'Brien 8	& Gere data validation approach using NJDEP data validation guidelines		
68	The result is qualified because the combined DDT/Endrin breakdown is greater than		
	30%.		
69	The results are rejected because GPC cleanup was not performed on the sample extract.		
70	The results are rejected because florisil cleanup was not performed on the sample extract.		
71	The results are rejected because norsh cleanup was not performed on the sample extract. The results are rejected due to GPC calibration or analysis deficiencies.		
72	The results are rejected due to Gre calibration of analysis deficiences. The results are rejected because the florisil cartridge check yielded unacceptable percent recoveries or was not performed		
72	properly.		
73	The sample holding time was exceeded by greater than ten days. The sample results are rejected.		
74	The GC/MS Instrument Performance Check Solution (IPCS) failed acceptance criteria or was not performed. The associated sample results are rejected.		
74A	The results are qualified due to IPCS time-of-analysis excursions.		
75	Three or more analytes in the initial calibration or continuing calibration failed to meet acceptance criteria. The associated sample results are rejected.		
76	The results in the fraction are rejected because the response factor in the initial and/or continuing calibration is less than 0.01 or does not meet the project requirement.		
77	The results in the fraction are rejected because the %RSD and/or %D is greater than 40% (or in the case of %D, less than - 40%).		
78	The positive result is qualified because the RRF of the compound (with no %RSD or %D) is less than 0.01 or does not meet the project requirement.		
79	The non-detect result is rejected because the RRF of the compound (with no %RSD or %D) is less than 0.01.		
80	Five or more analytes in the initial calibration or continuing calibration failed to meet %RSD or %D and/or RRF acceptance criteri. The associated sample results are rejected.		
80A	Results are rejected since the continuing calibration was not performed properly.		
81	Sample results for the fraction are rejected because the % recovery of two or more SMCs (or surrogates) failed to meet criteria.		
81A	Results are rejected due to severe surrogate analysis excursions.		
81B	Results are qualified due to surrogate analysis excursion.		
82	Sample results for the fraction are rejected because the %recovery of one or more SMCs (or surrogates) in the associated method blank failed to meet criteria.		
83	Sample results for the fraction are rejected because the retention time of one or more internal standards deviated by more than +/-30 seconds from the retention time of the corresponding internal standard in the associated calibration standard.		
84	Two or more internal standard areas in the sample did not meet the QC criteria with recoveries of less than 25%. The detected results and non-detected results are rejected (R).		
84A	Results are qualified due to sulfur cleanup issue.		
84B	Results are qualified due to internal standard failure.		
85	Sample results for the fraction are rejected because sulfur was present in the sample and sulfur cleanup was not performed operformed properly.		
86	Results are rejected due to failure to submit manual integration technique.		
87	Results are rejected or qualified due to zero matrix spike/ matrix spike duplicate recoveries.		
88	Results are qualified due to laboratory control sample excursions.		
88A	Results are rejected due to laboratory control sample recoveries of less than ten percent.		
89	Detected organic results are qualified due to zero matrix spike/matrix spike duplicate recoveries.		
89A	Organic results are qualified due to matrix spike/matrix spike duplicate precision excursions.		
90	Results are qualified due to field duplicate excursions. (UJ, J)		
91	Results are qualified due to calibration excursions.		
92	Results are rejected due to significant canister pressure differences.		
93	Results are rejected since SIM was utilized.		
94	Results are rejected since a separate MDL study was not performed for each instrument.		
95	Results are qualified due to analysis excursions.		
96	Results are qualified due to a sample collection excursion.		
	Results are rejected due to a sample collection excursion.		
96A			
	Results are qualified due to sample preparation excursion.		
97	Results are qualified due to sample preparation excursion. The reported hexavalent chromium result was qualified because the post verification spike was greater than 115%.		
	Results are qualified due to sample preparation excursion. The reported hexavalent chromium result was qualified because the post verification spike was greater than 115%. The reported hexavalent chromium result was qualified because the post verification spike was less than 85%		



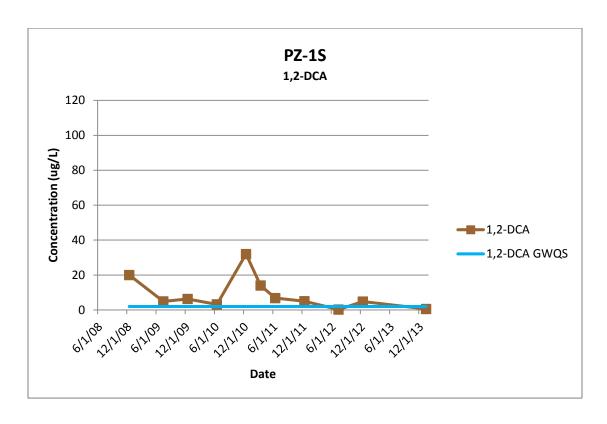
Table 3 - O'B	rien & Gere data validation approach using NJDEP data validation guidelines
	of a false negative exists.
101	The reported hexavalent chromium result was qualified because the pre-digestion spike recovery was less than 75%.
102	The reported hexavalent chromium result was qualified because the pre-digestion spike recovery was greater than 125%.
103	The non-detected hexavalent chromium result was qualified because the pre-digestion spike recovery was less than 75%. The possibility
	of a false negative exists.
104	Results are qualified due to sample preservation excursion.
* Indicates th	at NJDEP data validation guidelines do not address this situation; therefore, validation qualifiers are not applied to data.
Source O'Brie	en & Gere

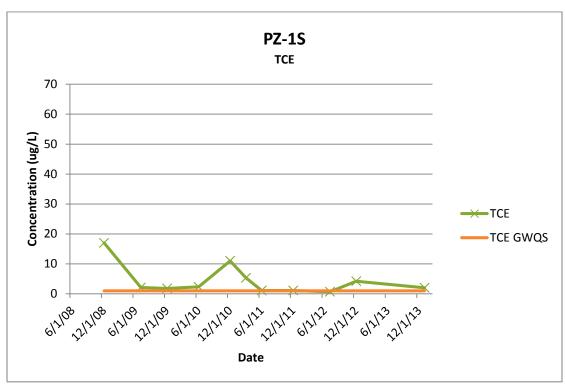


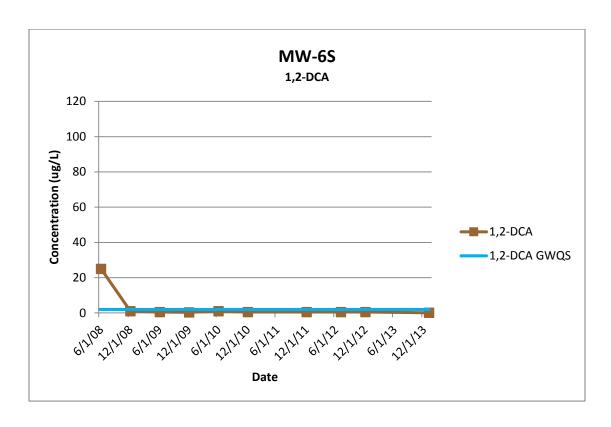
QA/QC Term	Definition		
Quantitation limit	The level above which numerical results may be obtained with a specified degree of confidence; the minimum concentration of an analyte in a specific matrix that can be identified and quantified above the method detection limit and within specified limits of precision and bias during routine analytical operating conditions.		
Method detection limit	The minimum concentration of an analyte that undergoes preparation similar to the environmental samples and can be reported with a stated level of confidence that the analyte concentration is greater than zero.		
Instrument detection limit The lowest concentration of a metal target analyte that, when directly inputted on a specific analytical instrument, produces a signal/response that is statistic from the signal/response arising from equipment "noise" alone.			
Gas chromatography/mass spectrometry (GC/MS) instrument performance check	Performed to verify mass resolution, identification, and to some degree, instrument sensitivity. These criteria are not sample specific; conformance is determined using standard materials.		
Calibration	Compliance requirements for satisfactory instrument calibration are established to verify that the instrument is capable of producing acceptable quantitative data. Initial calibration demonstrates that the instrument is capable of acceptable performance at the beginning of analysis and calibration verifications document satisfactory maintenance and adjustment of the instrument on a day-to-day basis.		
Relative Response Factor	A measure of the relative mass spectral response of an analyte compared to its internal standard. Relative Response Factors are determined by analysis of standards and are used in the calculation of concentrations of analytes in samples.		
Relative standard deviation	The standard deviation divided by the mean; a unit-free measure of variability.		
Correlation coefficient	A measure of the strength of the relationship between two variables.		
Relative Percent Difference	Used to compare two values; the relative percent difference is based on the mean of the two values, and is reported as an absolute value, i.e., always expressed as a positive number or zero.		
Percent Difference	Used to compare two values; the percent difference indicates both the direction and the magnitude of the comparison, i.e., the percent difference may be either negative, positive, or zero.		
Percent Recovery	The act of determining whether or not the methodology measures all of the target analytes contained in a sample.		
Calibration blank	Consists of acids and reagent water used to prepare metal samples for analysis. This type of blank is analyzed to evaluate whether contamination is occurring during the preparation and analysis of the sample.		
Method blank	A water or soil blank that undergoes the preparation procedures applied to a sample (i.e., extraction, digestion, clean-up). These samples are analyzed to examine whether sample preparation, clean-up, and analysis techniques result in sample contamination.		
Field/equipment	Collected and submitted for laboratory analysis, where appropriate. Field/equipment blanks are handled in the same manner as environmental samples. Equipment/field blanks are analyzed to assess contamination introduced during field sampling procedures.		
Trip blank	Consist of samples of analyte-free water that have undergone shipment from the sampling site to the laboratory in coolers with the environmental samples submitted for volatile organic compound (VOC) analysis. Trip blanks will be analyzed for VOCs to determine if contamination has taken place during sample handling and/or shipment. Trip blanks will be utilized at a frequency of one each per cooler sent to the laboratory for VOC analysis.		
Internal standards performance	Compounds not found in environmental samples which are spiked into samples and quality control samples at the time of sample preparation for organic analyses. Internal standards must meet retention time and recovery criteria specified in the analytical method. Internal standards are used as the basis for quantitation of the target analytes.		
Surrogate recovery	Compounds similar in nature to the target analytes but not expected to be detected in the environmental media which are spiked into environmental samples, blanks, and quality control samples prior to sample preparation for organic analyses. Surrogates are used to evaluate analytical efficiency by measuring recovery.		

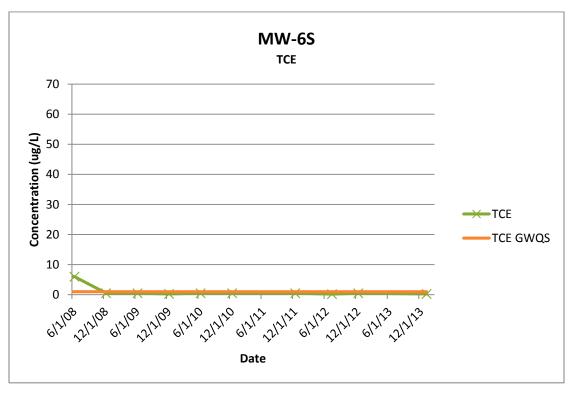


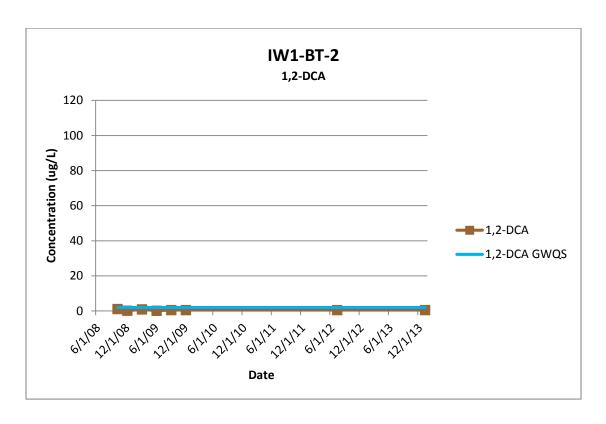
Laboratory control sample	Standard solutions that consist of known concentrations of the target analytes spiked into laboratory analyte-free water or sand. They are prepared or purchased from a certified manufacturer from a source independent from the calibration standards to provide an
Matrix spike blank analyses	independent verification of the calibration procedure. They are prepared and analyzed following the same procedures employed for environmental sample analysis to assess method accuracy independently of sample matrix effects.
Laboratory duplicate	Two or more representative portions taken from one homogeneous sample by the analyst and analyzed in the same laboratory.
Matrix	The material of which the sample is composed or the substrate containing the analyte of interest, such as drinking water, waste water, air, soil/sediment, biological material.
Matrix Spike (MS)	An aliquot of a matrix (water or soil) fortified (spiked) with known quantities of specific target analytes and subjected to the entire analytical procedure in order to indicate the appropriateness of the method for the matrix by measuring recovery.
Matrix spike duplicate (MSD)	A second aliquot of the same matrix as the matrix spike that is spiked in order to determine the precision of the method.
Retention time	The time a target analyte is retained on a GC column before elution. The identification of a target analyte is dependent on a target compound's retention time falling within the specified retention time window established for that compound.
Relative retention time	The ratio of the retention time of a compound to that of a standard.

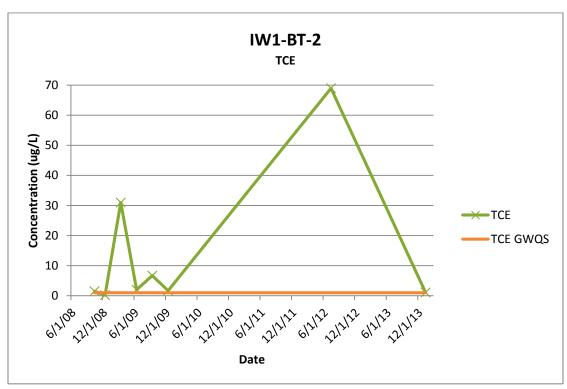


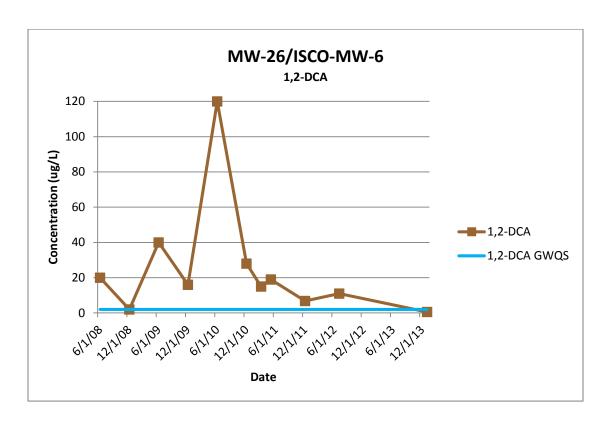


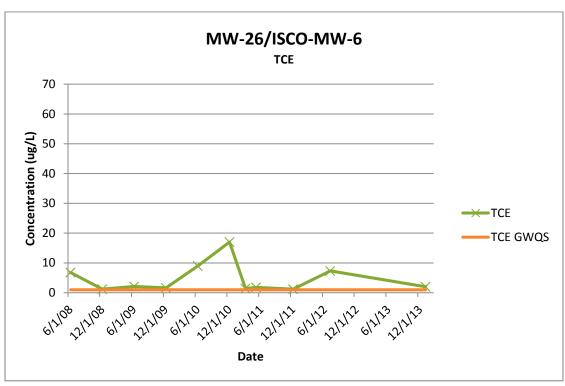




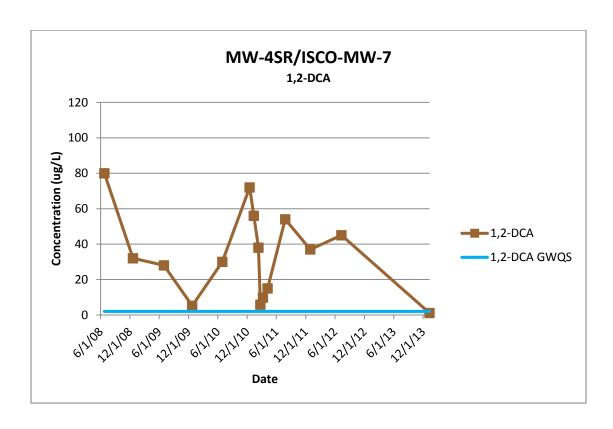


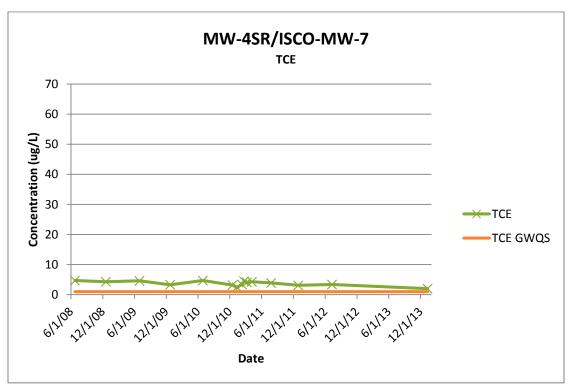






Note: ISCO-MW-6 was installed to replace former well MW-26 on November 27, 2013.





Note: ISCO-MW-7 was installed to replace former well MW-4SR on December 23, 2013.

